

Australian Consumers' Association

September 1995

CHOICE

**Is your water
safe to drink?**



Investing in shares
How to keep the risks down

Tests
Hair removal kits
High chairs



About the Consumers' Association

The Australian Consumers' Association is a non-profit, non-party-political organisation established in 1959 to provide consumers with information and advice on goods, services, health and personal finances, and to help maintain and enhance the quality of life for consumers.

We are completely independent. We buy all the products we test on the open market. We are not beholden to any commercial, government or union interests, and we don't accept advertising, paid or unpaid. Our income is derived from the sale of CHOICE and our other publications and products.

We test and rate products and services. Our CHOICE ratings are usually based on quality without regard to price, and are derived from lab tests, expert judgments and reader surveys. If a product is high in quality and relatively low in price, we deem it a Best Buy. A rating applies only to the brand and model tested, not to other models sold under the same brand name, unless so noted. We can't conduct special tests or provide information about tested products beyond what appears in CHOICE.

No commercial use policy. Our ratings and reports may not be used in advertising or for any other commercial purpose. The Consumers' Association will take all steps open to it to prevent commercial use of its materials, its name, and the name of CHOICE or our other publications. Please report any apparent violation to the Consumers' Association, 57 Carrington Road, Marrickville 2204; fax (02) 558 9341.

We represent and act in consumers' interests. We lobby and campaign on behalf of consumers to promote consumers' rights, to influence government policy, and to ensure consumer issues have a high profile in the public arena.

Membership. Subscribers can become voting members of the Consumers' Association on application. Membership costs \$75 per year, which covers your subscription to CHOICE plus a further subscription to our policy magazine, *Consuming Interest*.

About CHOICE

CHOICE is published monthly by the Australian Consumers' Association.

Subscription rates. \$48 for one year, \$89 for two years; institutions \$66 per year.

Subscription problems or changes of address. Write to Subscriptions Department, CHOICE, 57 Carrington Road, Marrickville 2204, phone (02) 558 8088 or fax (02) 559 3260. Please include your subscriber number (found in the top corner of your CHOICE address label) or have it ready by you when you phone us.

Back issues. Subscribers can buy back issues at the following rates: \$6 for one copy, \$10 for two, \$13 for three, and \$4 each after that. Non-subscribers can purchase back issues that are less than 12 months old for \$16 per copy; more than 12 months old, \$10. Write to Consumer Information Service, CHOICE, 57 Carrington Road, Marrickville 2204, or phone (02) 559 9855.

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Mailing lists. We never sell the CHOICE mailing list to other organisations. We also don't purchase mailing lists for marketing purposes from other organisations.

Other Consumers' Association products

Choice Books publishes non-fiction titles on a wide range of topics, with a consumer perspective.

Consumer Bookshelf offers both Choice Books and material from other publishers for sale by mail order.

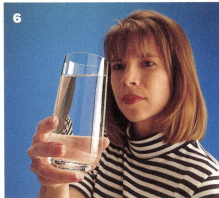
CHOICEFAX supplies faxed copies of many CHOICE articles for \$6 per article to subscribers, \$16 to non-subscribers. Call 558 8088 to order an article, using your credit card details.

Test Research provides fee-for-service testing of consumer products for other consumer organisations, government and industry.

Consuming Interest, our quarterly campaigning magazine, is published in February, May, August and November. It provides straight facts, probing analysis, in-depth reporting, informed opinion and stimulating debates. It also gives updates on the lobbying and campaign projects of the Consumers' Association.

CHOICE Travel. This magazine is produced by the UK Consumers' Association and reprinted by CHOICE four times a year. Its reports are independent in the same style as CHOICE and, while they're written from the perspective of a European base, most of the information in them is just as useful to travelling Australians.

6

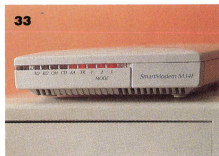


Cover photo: Kent Mears

22



33

**Next month**

Washing machines; reverse-cycle air conditioners; colour inkjet printers; margarine, butter and other spreads; savings accounts and other savings options; cooling your home; pet food.

November, December, January

Tests: Electric lawnmowers, clothes dryers, termite inspections, 500 L fridges, scotch, blenders, digital mobile phones, cassette decks, electric wall ovens, ice cream.

Reports: Weight loss programs, using the hospital system, choices for a republic, making a will, buying a mobile phone, travellers' health, smart cards, the CHOICE Annual Buying Guide, pay TV vs free-to-air, new surgical techniques, buying a new bathroom.

Choice Regulars**4 Choice Cuts**

Child safety: waterbed warning and our Kidsafe index; access to the Internet; don't pay for goods in advance; French products; becoming a member of the Consumers' Association.

14 Consumer-in-law

Having a row with your neighbour that looks like it's heading for court? Try a dispute resolution centre instead — they're cheaper, friendlier and more likely to solve the real problem.

28 Consumer Bookshelf**32 Letters**

The customer service of your nightmares.

33 Computing Choice

What is a modem, and what will one enable you to do with your computer? Plus a look at some on-line information providers.

37 Green Page

You can make your office as green as your home.

46 What do you know?

Our regular consumer quiz.

Choice Reports**6 How safe – and affordable – is our drinking water?**

What nasties might be in our water, and how do water authorities find and remove them? What can you do if you think there's something wrong with your water? What difference will corporatisation of water boards make to consumers? This article answers these questions.

17 Getting rid of unwanted hair

Shaving, tweezing, waxing, electrolysis, depilatory creams — do any of them offer the ideal route to that smooth, sleek, hair-free look?

22 Understanding shares

Shares are a major part of a balanced investment strategy — but do you know how the system works and how to use it to your advantage?

Choice Tests**20 Zapping hair at home**

Do home hair removal 'kits' really work?

40 High chairs

There's been an improvement in high chair safety since we last looked at them, but as we still can't recommend nearly half the chairs in this test, the industry has a long way to go.





CHOICE CUTS

Paying for the Internet

THE INFORMATION SUPERHIGHWAY FOR ONLY \$9.95?

IF YOU'RE PLANNING TO JOIN the Internet, watch out — there may be more costs involved than are at first obvious.

In February this year, a CHOICE reader bought the 'Instant Internet Access' software package, published by AUSNet Services, for \$9.95 from a local newsagent. (We mentioned the software in our story on the Internet in July.) The package, which includes a disk, promised: "Direct contact with over 40 million users in over 60 countries", and told buyers they could "connect to the world for 25 cents".

In fact, to access the Internet you will need more than this package and a computer. First you'll need a modem. Second, unless you can get onto the 'net' through your work or university, you have to pay a company to give you ongoing access.

Access companies are called

service providers. The AUSNet disk is set up for use with AUSNet, but it can be used with other service providers. It's important to shop around for the service that suits you best.

Most service providers will charge you a joining fee, as well as regular charges to stay on the Internet. These charges are in addition to the cost of making a local telephone call to connect to the Internet service provider, currently around 25 cents.

Our reader complained that the AUSNet package did not do enough to bring these additional costs to the people's attention. The back of the packaging told buyers it was necessary to set up an AUSNet account — but it didn't say this costs \$40, payable by quoting a credit card number. It also didn't say there would be regular charges to pay.

The disk is now out of circulation, but AUSNet plans to release new Internet products. Its marketing director, Chris Campbell, told CHOICE that future products would provide more information about the real cost of obtaining access to the Internet.

The important thing is to be aware that joining the Internet certainly costs more than \$9.95. When you're tempted by the hype about hyperspace, make sure you balance your enthusiasm against the real costs involved.



Payment pitfalls

DON'T PAY IN ADVANCE

THE RECENT financial problems of Osborne Computers have highlighted the pitfalls of paying for products before taking delivery of them.

Several hundred customers were left without the computers they had paid for when the company called in a voluntary administrator to assess its financial position. At the time of writing, it appears a US company, Gateway 2000, may takeover the remains of Osborne, and that customers may receive their machines by Christmas.

If you're thinking of buying a computer, or

indeed any product or service, we advise you never to pay the full price in advance. In some cases a small deposit may be justified to prove to the retailer that you're a serious customer.

If you're asked to pay a large amount of money before receiving a product, it may be an indication the company is experiencing cash flow problems. If the company folds before you take delivery of the product, you'll be an unsecured creditor, which means you have to wait behind most of the other creditors to try to get your money back.

Child safety

WATERBED WARNING

MEDICAL EXPERTS warn that free-flow waterbeds are potentially deadly to infants.

- Babies can sink into depressions in the plastic surface of an adult free-flow waterbed and suffocate.
- They can fall off the waterbed, as their position is unstable.
- Adults sleeping beside them may roll onto them.
- They may get too hot.
- The risk of sudden infant death syndrome (SIDS) may be increased.

The report came from University of Tasmania researcher Dr Anne-Louise Ponsonby and colleagues, and was reported recently in *The Medical Journal of Australia*.

Waterbeds may be particularly hazardous, but any adult bed is unsuitable for an infant to sleep in, says Dr Ponsonby. In the US and UK, authorities say it's safest for a baby to sleep on a firm mat-

tress, with its feet touching the bottom of its cot so it doesn't slip underneath the bedclothes.

To reduce the risk of SIDS, medical authorities advise that babies should be put on their side for sleeping (with the underneath shoulder brought forward to stop them rolling onto their stomachs) or on their back. Dr Ponsonby says SIDS deaths in Australia have halved following publicity about the dangers of infants sleeping on their stomachs.

SIDS may also be associated with overheating, so avoid using heated waterbeds, electric blankets, duvets and quilts for infants under 12 months of age, don't use too many bedclothes and ensure the baby's room is not too hot (ideally around 16–20°C). There should be adequate air flow around the cot, and avoid smoking around the baby.



To reduce the risk of SIDS, babies should sleep on their side (as above) or back, not their stomach.



Several hundred customers were left without the computers they'd paid for when Osborne had financial problems.

CHOICE KIDSAFE INDEX

Here's a ready index (January 1991 to September 1995) of CHOICE articles, books, *Choice Cuts*, *Green Page* and other small pieces (the latter three indicated by *) which relate to children and their care. We've compiled it in support of Kidsafe, the Child Accident Prevention Foundation of Australia (CAPFA). We hope you find it useful.

Accident prevention Jul 91*
Additives in Food Feb 91, Oct 92*
Air Pollution Jul 95
Alcohol in kids' medicines Aug 93*
Allergies Nov 92
Aluminium in canned drinks Aug 92*
Aluminium in the diet Jan 92, Apr 92*
Antibiotics Aug 93
Asthma management Nov 91*, May 93,
 Dec 93*
Baby exerciser Nov 94
Baby monitors Nov 93*
Baby Play Gym Jul 91

Baby walkers Nov 93*, Jul 95*
Barbecues, kettles Mar 92*, Jan 93
Bicycle helmets May 91, Oct 92
Bunk beds Jan 92, Oct 92*
Chemicals in the home Sep 92, Dec 94*
Child car restraints Mar 93*, Apr 93, Apr 94, Apr 95, Jul 95*
Childcare Oct 94, Nov 94
Children in car accidents Sep 93*
Children's party food Dec 90, Apr 91*

CHOICE Guide to Baby Products
 Consumer Bookshelf
 (3rd edition available in October)
Clothes labelling Apr 93
Cots Mar 91, Jun 91*, Jul 91*, Aug 91*, Jan 94*
Cradles, unsafe Dec 92*
Drinking water Sep 95
Dogs that bite Aug 91*
Fast food Apr 94
Fire safety Feb 94*
Fish fingers, frozen Feb 92
Fruit substitutes for kids Sep 91*, Mar 93

Health system Aug 95
Heaters, radiant May 91
High chairs Jul 93, Sep 95
Home emergencies Mar 92
Hot water hazards Sep 94, Jul 95
In-line skates Dec 92, Dec 94*
Lambkins Nov 91*
Lead May 95
Lead in canned foods Jan 93*
Lollies Nov 92*, Feb 95*
Nappies Sep 91*, Mar 92*, Nov 93

Natural oils - toddlers at risk Jul 91*
Packaged meals for kids Feb 93
Peanut butter Jul 94
Pen tops Apr 94*
Playground equipment accidents Feb 92
Pollution in the home Jan 93
Pool fences Dec 91*, Dec 92
Mayal jelly May 94
Science sets May 91*
Shopping trolley safety Mar 92*
Smoke detectors Feb 92

Soy drinks Apr 92
Strollers Nov 91, Feb 92*, Aug 94
Sugar in the diet Apr 92
Sun protection Apr 91*, Jan 92*, Jan 93, Jan 95, Mar 95*
Sunglasses Jan 91*, May 91*, Feb 92*
Swimming caps Dec 93*
Television viewing Dec 93*
Toy safety Nov 91
Toy instructions Aug 92*
Water filters Feb 93, Apr 95, May 93*, Sep 93, Sep 95

To find out more about Kidsafe contact the Child Accident Prevention Foundation of Australia office in your state or territory on the following numbers:
 ACT: (06) 290 2242
 NSW: (02) 848 2805
 NT: (089) 89 2783
 Qld: (07) 3854 1829
 SA: (08) 204 6318
 Vic: (03) 9670 1319
 Tas: (002) 24 1124
 WA: (09) 340 8509

French fall-out

MADE IN FRANCE

EARLIER THIS YEAR, French President Jacques Chirac announced that France would conduct seven underground nuclear tests at Mururoa Atoll in the Pacific Ocean between September 1995 and May 1996. At the time this article went to press, there were no signs that the French President would change his mind.

In response to requests from people wanting to send a signal to the French government by declining to purchase French products, we have compiled a list of products made in France.

You've probably seen other lists of 'French' products in the media. The CHOICE list is limited to those products made in France and imported into Australia.

We considered including products made by companies in Australia which were owned or part-owned by French companies. However, this information is not easy to obtain.

The best way to find out whether a particular company operating in Australia has French ownership is to call and ask if any of its owners are French. You can also ask for a copy of the annual report, which will provide information on who owns the company.

So what does the CHOICE list reveal? Many well-known French



products with 'French-sounding' names are included in our list — things like French cheeses, perfumes, cosmetics, cars and champagne.

But there are plenty of French-made products you might not be aware of — like some household appliances, kitchenware, and food and drinks. Did you know, for example, that some KLEENMAID dishwashers, TELECOM fax machines and ALCATEL mobile phones are made in France?

While no list can be comprehensive, we will be updating it. To get a copy of the list, please write to: French Product List, Consumer Information Service, 57 Carrington Road, Marrickville 2204. Please include a stamped self-addressed envelope.

Can you help?

BUYING A NEW BATHROOM

If you've had your bathroom renovated or installed a new one in the last 12 months, we'd love to hear from you. We're writing a report on how to buy a new bathroom and would like to hear about your experiences.

Are you satisfied with the end result? Was the work completed on time and within budget? Did you encounter any difficulties or problems? We're interested in both good and bad experiences.

If you can help, please write to:

Buying a new bathroom, CHOICE, 57 Carrington Road, Marrickville 2204, or fax (02) 558 9341, by September 30, 1995. Thank you.

MEMBERSHIP OF ACA

Have you ever thought about becoming a member of the Australian Consumers' Association? The consumer movement is more relevant now than ever, and your support will help us to maintain the balance between corporate and consumer power.

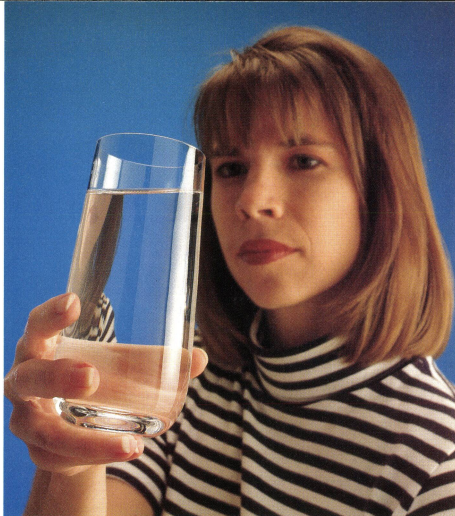
Membership is \$75 per year and members receive both CHOICE and *Consuming Interest* magazines. *Consuming Interest* is our quarterly campaigning magazine which turns consumer information into action — it contains news, views and hard-hitting debates.

Our members are also entitled to vote for our governing body (the ACA Council) — the inside back cover of each issue of CHOICE lists our current Council members. Voting members can stand for Council as well; however, to preserve the ACA's independence, no Council member can be a major player in industry, advertising or sales.

An election for our Council is coming up in October, so if you are interested in becoming a voting member, please write to: Subscriptions, 57 Carrington Road, Marrickville 2204, or send a fax to (02) 559 3260 — we need to hear from you by the end of September.

If you would like more information, please ring our Consumer Information Service on (02) 558 0099.

How safe ~ and affordable ~ is our drinking water?



As our population centres grow, increasing demands are being placed on our water resources. Not only is the water itself being placed under stress, but also the systems which collect and deliver it to our taps. Add to this scenario the current restructuring of Australia's water suppliers, and many people want to know if we can still take clean, safe water for granted.

H₂O, and anything else?

By and large our water supplies are clean and safe to drink, but what are the possible major contaminants, and just how worrying are they?

THE WATER WE DRINK, COOK WITH, wash and clean with and use to water our gardens travels a long and circuitous route from the rainwater flowing into lakes and streams. Along its path numerous things can, and occasionally do, go wrong.

Generally, the contaminants in water which taste, smell or look funny are not a hazard to health. These are listed in Table 1 on page 11.

Perhaps less noticeable but, when present, more worrying are some of the following.

■ **Bacteria:** Not all bacteria are harmful. An indication of the level of potentially pathogenic bacteria (the ones that can

make you sick) is found by measuring the levels of other bacteria such as coliforms (for example, *E. coli*) in water. These bacteria are found in the gut of animals, and therefore in their faeces. Finding them in water indicates it could also have been contaminated by other, potentially dangerous, organisms.

■ **Viruses:** These tiny organisms can be found in water, and can also cause you to become sick. However, it's difficult to pin down whether some outbreaks of 'food poisoning' are due to water or food. Although treating water with chlorine kills most viruses, some may survive better than bacteria do.

■ **Other micro-organisms:** The impres-

sively named cryptosporidium and giardia are two organisms which can be present in water supplies. Both can cause diarrhoea and severe illness. Cryptosporidium was responsible for a large outbreak of flu-like intestinal illness in the city of Milwaukee in the US in 1993. Hundreds of thousands of people were affected, and the publicity there has focused attention on the quality of drinking water.

While normal water treatment usually deals with most micro-organisms, cryptosporidium and giardia can survive chlorination, and filtration is necessary to remove them. Unfortunately no system is foolproof, and these micro-organisms sometimes slip through. People whose immune systems are not working properly — for example people with AIDS or those undergoing chemotherapy — may be particularly susceptible and should ask their doctor for advice on whether they should avoid drinking tap water.

■ **Blue-green algae** (otherwise known as cyanobacteria) are responsible for many of the algal 'blooms' we've seen in our waterways over the past years. The most spectacular and devastating was the one which occurred in the Darling, Barwon and Murray rivers in the summer of 1991-92. Affecting over 1000 km of river, it was the largest ever reported worldwide.

Cyanobacteria feed on phosphorus that is washed into waterways from farm fertilisers and sewage (which contains phosphorus from both human waste and laundry detergents, for example). A combination of high summer temperatures, sunshine, high levels of nutrients (in particular phosphorus) and low water levels results in the cyanobacteria taking over.

For communities that draw their drinking water from this river system, the effects can be worrying: one study found that people living along the river at the time of the bloom had increases in skin rashes and gastrointestinal problems. Using bottled water during these times might be one option, but this would be expensive. The possible effects need further investigation, and strategies must be developed and put in place to protect these communities if another algal bloom occurs.

Some blue-green algae also produce toxins which could in theory damage the liver and nervous system, though there's no evidence of this happening in practice.

■ **Lead:** In Australia, lead in drinking water mainly comes from brass fittings

— which can contain up to 6% lead — in domestic pipes. In new buildings small amounts of lead can leach for a few years from the brass into water that stands in pipes for more than about six hours. Lead particularly affects the intellectual and behavioural development of young children.

Letting a few litres run out of your taps first thing in the morning, or any other time when the water hasn't been used for a while, reduces the risk (you don't have to waste it — you can use it for washing, or watering indoor plants). See *Lowering lead levels*, CHOICE, May 1995, for more information on lead and how to minimise problems with it.

■ **Nitrates:** The main source of nitrate, and its sister compound nitrite, in waterways is fertiliser run-off.

Excessive nitrate in water is mainly a problem for babies and young children. They can develop methaemoglobinemia, which deprives vital organs of oxygen. In areas where nitrates are a problem, people are usually advised by the water authority to use boiled bottled

or rain water when making up feeds for babies under three months.

■ **Synthetic organic chemicals:** Many different chemicals can find their way into our waterways. Pesticides and herbicides such as aldrin, dieldrin, atrazine, chlordane, DDT, heptachlor and lindane are all possible candidates. Not all are still used, but because they may last a long time in the environment they can still cause problems. Many are potential carcinogens.

While they have been known to show up in low concentrations in drinking water, our water sources are mainly free from this type of contamination and our catchment areas are generally well protected, so they're not commonly found. However, frequent and regular testing is not always carried out, particularly in rural areas. Testing programs need to be regular, and tailored to the patterns of pesticide use in the particular area. The new drinking water guidelines advocate this targeted approach, but water authorities don't have to follow this advice (see *Who's checking* on page 9).

Algal blooms are worrying for communities that draw their drinking water from the affected river system. Strategies need to be put in place to protect them.

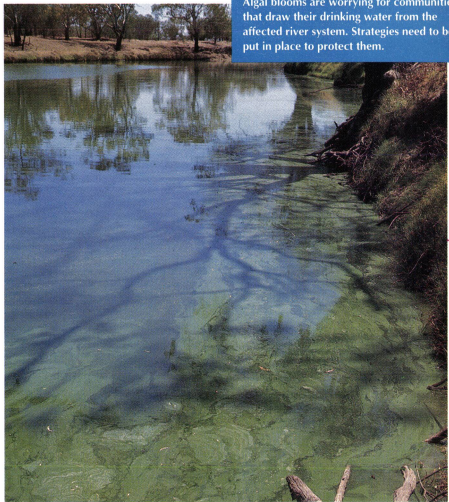


Photo: David Eastburn/Murray-Darling Basin Commission

When the treatment is as bad as the problem

Chemicals used to treat our water can create new problems. Do the benefits always outweigh the risks?

IN SOME CASES THE VERY CHEMICALS that are added to our water in order to make it safe to drink can cause their own problems. Water treatment, especially chlorination, has largely stopped the spread of diseases such as cholera and typhoid. However, the use of some of the chemicals used to kill these bugs has come under scrutiny, as have treatments like aluminium and additives like fluoride.

■ **Chlorine:** Chlorine is added to water supplies for the very important function of killing most micro-organisms. It also remains in the water to protect it from contamination as it travels through the system. The downside is that the leftover chlorine can react with other substances in the water to produce some potentially carcinogenic by-products. Substances called trihalomethanes, or THMs, are one example of those that can be formed. The best-known of these is chloroform, once widely used as an anaesthetic.

Some studies have suggested that

communities with chlorinated drinking water have a higher incidence of bladder and bowel cancer. If that's true, it's a serious trade-off: you risk widespread, life-threatening illness now, or the possibility of an increased risk of cancer later. For now at least, the former is generally regarded as far outweighing the unconfirmed risk of possibly increased cancer rates, but research into implementing alternatives is needed.

■ **Aluminium:** Aluminium has been linked with Alzheimer's disease. What isn't known is whether the aluminium causes the disease, or whether its presence in the brains of sufferers is a result.

Chemicals that contain aluminium are used in many parts of Australia to treat water to make it clear and clean. The debate about whether they *should* be used has been raging for many years. As the scientific jury is still out, it may be a long time before we know the real answer.

Although the aluminium used to treat drinking water doesn't generally

dissolve in it, the results of recent Australian research have raised concerns that the small amount that may dissolve can be absorbed into the brains of rats. However, the study used only eight rats, so the results can't be considered conclusive, and more research is needed.

Whatever the outcome of this debate, aluminium in drinking water can definitely be a problem for two specific groups of people: kidney dialysis patients and premature babies.

Not all water authorities use aluminium to treat water, however. Of the ones that we contacted (see *Our survey*, right), Sydney Water said it was phasing out the use of aluminium as a precaution, while some others said they didn't use aluminium at all in their area because it simply isn't needed. However, most authorities said they are watching the debate carefully for new evidence.

■ **Fluoride:** This is added to most water supplies to help prevent tooth decay, although it is not as common in some states as others. Questions have been asked for years about its possible health risks — which include accusations that it can cause cancer and genetic mutations. However, no firm evidence has been found.

Some communities, for example Bunbury in WA, have even maintained their own local water supplies in order to avoid having fluoride added to their water. And in Queensland, only six out of 360 water supplies add fluoride. The debate is a balancing act between the demonstrated benefits and the as yet unconfirmed risks.

AT THE END OF THE LINE

Jennifer and Bob of West Como, NSW, have put up with problems with their water supply for 29 years — in fact, since they bought their house. They live at the end of a cul-de-sac. The water problems for people who live in this type of location may strike a chord with many people.

"You do the washing but can't tell until a load is finished that the water is brown and the clothes are all stained — it all has to be redone and some of it never gets white again! We call the water people whenever this happens, and they come and pump out water from the end of the line at the bottom of the street. The water coming out looks like the Yarra — like muddy water — and they let it flow until it's clear. We use a filter now but when we clean it, once a week, we still get what looks like layers of rust.

"Chlorine can be a problem as well, as one of our daughters



is allergic to it. When she was little, we had to put out tubs of water to sit in the sun for a few hours before she could drink it. She still comes up in welts from a shower when the chlorine level is high.

"Since they've put in homes down the road, off the end of the cul-de-sac, the dirty washing problems are much better and we don't call nearly as often. But I imagine the people at the end of line still have problems!"

Sydney Water says that the Sutherland/Woronora area often has this sort of dirty water problem, particularly in cul-de-sacs where there's a 'dead end' in the water main. Manganese, which isn't a health risk, is the main culprit, and for the moment regular flushing is the answer. New filtration plants, due to start working at the end of next year, should largely fix this problem.

Who's checking?

The number of potential contaminants in drinking water is large — researchers in America have estimated there may be as many as 1000 in their water. Yet in Australia we still have no legally binding standards to regulate the quality of water across the country. Instead we rely on voluntary guidelines.

THE GUIDELINES DEVELOPED BY THE National Health and Medical Research Council (NHMRC) and the Australian Water Resources Council in 1987 were recently reviewed, and the 'Australian Drinking Water Guidelines — 1995' were due to be approved by Australian governments as we were going to press. This updated document is more thorough and comprehensive than earlier versions, but it's still only advisory.

Several sets of guidelines are still in use, and they do differ. From our survey of water authorities, the most widely used seems to be the NHMRC 1987 guidelines. However, guidelines issued by the World Health Organisation in 1993, and even the NHMRC guidelines issued in 1980, are used by some water authorities.

One of the benefits of the corporatisation of our water authorities (see *Water supplies in upheaval* on page 12) is that the government owners are being forced to specify that each corporation meets particular guidelines. For example, Sydney Water's operating licence requires it to meet all the health-related aspects of the NHMRC 1980 guidelines and to develop a timetable to upgrade to the 1987 guidelines. Hunter Water has a requirement to meet the 1987 guidelines.

Nearly all the water providers we surveyed said they would upgrade to the new 1995 guidelines when they are released. However, phase-in times are likely to vary widely — especially when you consider that, for example, Sydney Water told us in 1991 that it was upgrading to the 1987 guidelines, and this has not yet been achieved.

The upshot of this variation in guidelines is that not all Australians receive the same quality of water, or level of

protection. How often water authorities monitor their supply, and for what contaminants, may vary widely. In smaller rural communities in particular, monitoring can be carried out at irregular intervals.

We surveyed the water authorities for each capital city, and for two other large towns in each state (except for the ACT and Tasmania, where we surveyed the ACT as a whole, and Hobart only). The authorities who responded are listed on the right. Almost all were able to tell us the percentage of their test results that met the 1987 guidelines.

■ **Pesticides:** According to the figures they supplied, not all authorities monitor for pesticides, but for those that do, 100% of all samples, for all areas, met the guidelines.

■ **Chemicals:** When tested for various chemicals in the water, most samples complied, ranging between 91% and 100% OK. The main chemical problems reported were not major health concerns.

■ **Micro-organisms:** When it came to microbiological contamination, many authorities had a less than perfect score card, with up to one quarter of samples failing to meet the guidelines in some areas. The main bacteria found in excess were coliforms, which indicate possible contamination by other potentially harmful organisms (see *Bacteria* on page 6 for more information). However, failure to meet the guideline levels for bacteria is only an indication of possible problems; it doesn't automatically mean the water is unsafe to drink.

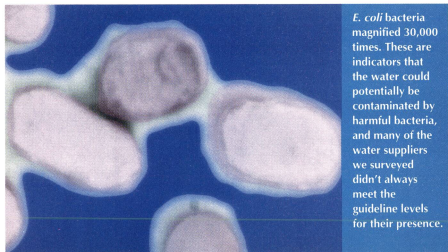
All in all it's not a bad report card, but there's still considerable room for improvement in the bacteria results — particularly when you consider that the guidelines allow a certain percentage of failures for some tests anyway.

Most water authorities will give you the results for your area if you ask for them. We'd like to see them all publishing these results regularly and publicly.

OUR SURVEY

We sent a survey to 22 water authorities around Australia. Those responsible for water in the following major centres responded and were included in our research:

- | | |
|-----------------|---|
| ■ ACT | ■ Katherine |
| ■ Adelaide | ■ Margaret River |
| ■ Alice Springs | ■ Melbourne |
| ■ Ballarat | (divided into three water 'businesses') |
| ■ Brisbane | ■ Mount Isa |
| ■ Broken Hill | ■ Perth |
| ■ Darwin | ■ Port Augusta |
| ■ Geelong | ■ Port Hedland |
| ■ Gold Coast | ■ Renmark |
| ■ Hobart | ■ Sydney |
| ■ Hunter Region | |



E. coli bacteria magnified 30,000 times. These are indicators that the water could potentially be contaminated by harmful bacteria, and many of the water suppliers we surveyed didn't always meet the guideline levels for their presence.

Photo: Dr Mel Dickson/Electron Microscope Unit, University of NSW

Checking out your water

If you're concerned about the quality of your water, use this flowchart to help you decide if you really have problems.

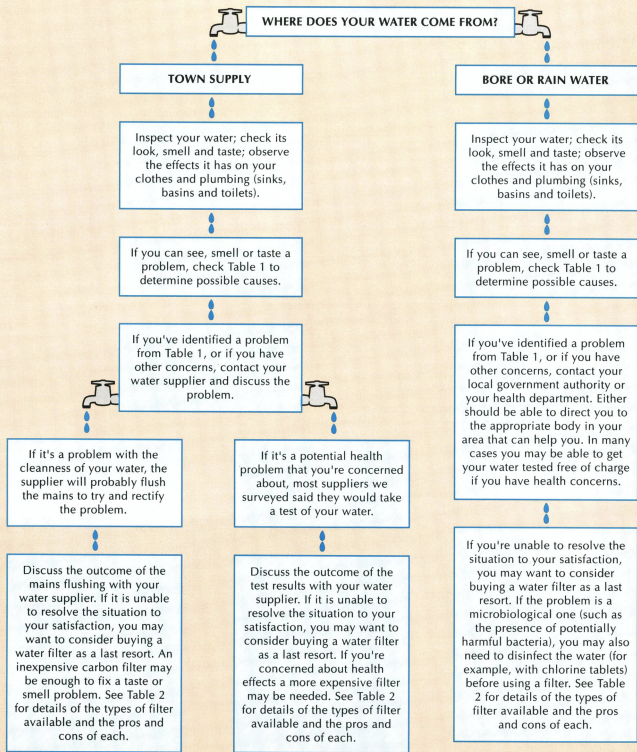


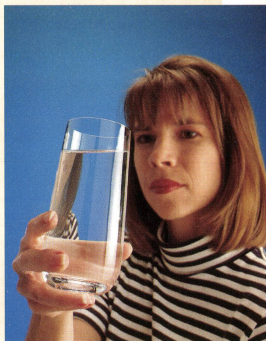
Table 1. Visible problems

Except for lead and some bacteria, most of these contaminants are unlikely to be health hazards unless they occur at very high levels, though they may well make your water look, taste or smell undesirable.

Problem	Symptom	Possible cause
STAINED PLUMBING AND CLOTHES	red or brown	iron
	black	manganese
	green or blue	copper
REDDISH-BROWN SLIME	slime	iron (bacteria feeding on the iron cause the slime)
	cloudy	turbidity (fine suspended particles) (A)
OFF-COLOUR WATER	black	hydrogen sulphide, manganese
	red	iron
	brown or yellow	iron, humic and tannic compounds
UNUSUAL TASTE OR ODOUR	rotten egg	hydrogen sulphide
	metallic	pH (acid-alkaline balance), iron, zinc, copper, lead
	salty	total dissolved solids, chloride
	septic, musty, earthy	bacteria or algae
	bleach-like	chlorine
CORROSIVE WATER	deposits, pitting	pH, copper, lead

Source: NSF International (formerly the US National Sanitation Foundation)

(A) Air bubbles can also cause water to be temporarily cloudy when it comes out of the tap.

**Table 2. Choosing a water filter**

Some water filters are better than others, depending on what you want to remove and how much you're prepared to pay. If you can't resolve your concerns with your water authority, check this table to decide which type of filter might suit you best. But keep in mind that if you don't maintain your water filter carefully and regularly, you may make your water worse rather than better. For more information on water filters and the contaminants they remove, see CHOICE, February 1993.

Type and how they work	Generally suitable for	Not generally suitable for	Pros and cons
CARBON FILTER: A cartridge of activated carbon (charcoal), which attracts impurities to its surface.	Chlorine, trihalomethanes (THMs), colour, taste and odour.	Metals, for example lead and copper; fluoride; bacteria.	Carbon filters have a high flow rate, so they're fast, and they're fairly cheap to buy. These filters are probably all you need if it's the taste of your water you dislike. Some also contain silver, which is claimed to stop bacteria from growing in the cartridge itself. Frequent changes of cartridge are generally required to maintain performance and safety, and this can become expensive. Sometimes some ion exchange resin (see below) is used in conjunction with carbon filters; this is generally no more expensive than carbon filters alone.
DISTILLERS: Work by boiling water and condensing the steam.	Most contaminants, including bacteria.	May have difficulty removing 'volatile organic chemicals', for example THMs.	Distillation filters work on most contaminants but they're bulky, slow and expensive to run. No parts need regular replacement, although they do use a fair amount of electricity.
ION EXCHANGE FILTERS: Contain ion exchange resins which attract positively or negatively charged chemicals. Most contain a mixture of both types.	Positive charge (cation): metals like lead and copper. Negative charge (anion): chemicals like fluoride and nitrate.	Organic chemicals such as pesticides; chlorine.	Ion exchange filters are moderately expensive, and they don't work as well when 'total dissolved solids' are high (water from Adelaide, Perth and rural areas may fall into this category).
REVERSE OSMOSIS FILTERS: These pass water through a thin membrane, which physically stops the large contaminant molecules passing through. The contaminants are then washed away.	Most chemicals, including metals, chlorine, fluoride, nitrates and pesticides (although the performance of some may be affected by chlorine and other chemicals in the water).		Reverse osmosis filters are very effective at removing contaminants, but are quite slow. They also use a lot of water: you use around five litres to get one litre of clean water. They are generally expensive and replacing the membrane every two years is also not cheap.

Water supplies in upheaval

Around Australia our federal and state governments have looked at public utilities — like water, gas and electricity — and have decreed that these giant monopolies need a shake-up.

COMPETITION IS THE BUZZWORD for the Nineties, and our water authorities have not escaped. The Commonwealth and state governments have agreed to corporatise large urban water supplies — making them behave more like businesses which compete in a marketplace and, in theory at least, are more accountable to their customers.

In most states smaller country water supplies are the responsibility of the local government, while larger urban areas have their own water authorities. These water authorities used to be part of the government — they're the large water boards many of us are used to dealing with. They'll never actually compete — only one set of water pipes comes to your door — but as corporations they have to operate as cost-efficient businesses.

In SA and WA the situation is slightly different. There, even the smallest water supply is controlled by a state-wide water authority. These are also gradually going down the path of corporatisation.

The idea of corporatisation may have some positive benefits for consumers, but there are also fears it's a prelude to the kind of problems the UK experienced when it privatised its water authorities. There, press reports of disconnections and fat-cat salaries caused public outrage.

Privatisation differs from corporatisation in that privatised utilities are owned and run by a private company, while with corporatised utilities overall control rests with the government.

Separate bodies will set the rules they have to follow — usually the state environmental protection body for environmental aspects, and state health departments and the National Health and Medical Research Council (NHMRC) for health aspects.

User pays

As our water authorities corporatise, they are also moving towards a user-pays system of water pricing. For some people this will mean a higher water bill, for others it may come down.

For a long time many Australians have been charged for their water use partly on the basis of the value of their property. You were charged a property value rate, and then your water meter was checked and you paid a certain amount per litre. In many cases you would get a certain amount of water free before you had to pay extra per litre (often called 'excess water rates').

New user-pays systems of pricing will mean property rates will be replaced by a smaller fixed charge, and most of your water bill will be based on the actual amount of water you use.

Another complication is that businesses have been cross-subsidising the cost of domestic residents' water. Businesses have paid large water rates regardless of the amount of water they use. Australian governments have decided that as populations grow and the pru-

dent management of our water resources takes on greater importance, these subsidies should be reduced, and the prices all consumers pay should reflect the real cost of the water they use.

What if you can't afford to pay the bill?

Australian water boards have had a long history of not disconnecting people who couldn't afford to pay. Our governments, in developing these new corporations, have recognised that there must be some attention paid to 'community service obligations', or the obligation of governments to ensure all consumers have access to basic goods and services needed for life and health.

However, there are no regulations to stop water authorities from disconnecting people who can't (or won't) pay. As the old system gives way to the new (with its focus on the economic bottom line), it's important that proper controls over the corporations' freedom to disconnect people's water are put in place. Water is such a basic commodity that everyone must be guaranteed the rights to be connected and to use a reasonable amount, regardless of their ability to pay.

Our governments must make regulations to ensure people are properly protected. It isn't good enough to rely on the water suppliers to do the right thing while under financial pressure.

The price/quality trade-off

A further aspect of corporatisation is its potential effect on the quality of water supplied. The new corporatised water authorities will be in a position to negotiate with their customers about this.

The better the quality and the more sophisticated the treatment demanded, the greater the cost. The community is likely to find itself in the position of having to decide how much it is willing to pay for 'perfect' water — and just what 'perfect' means.

This is untenable — good-quality, clean and healthy water should be available to everyone, at a reasonable price; this basic commodity shouldn't be at the discretion of either the water corporations or community pressure groups. Mandatory minimum water quality standards need to be put in place in all parts of Australia.



You might expect to wash your car less often now you'll pay for the actual water you use.

Tips to stop the drip

Most water authorities provide printed information about saving water, and most are urging people to use less. As Australia moves to a system of user pays, you may find saving water also means saving big bucks. Here are some tips.

Throughout the house

■ Fix leaking taps: a drip can waste more than 200 litres a day.

In the kitchen

■ If you have a dishwasher, load it to capacity — it uses the same amount of water, full or empty. If you're buying a new one, look for water efficiency (see *Every drop counts*, right).

■ Don't rinse your dishes with the tap running; use a plug, and fill the sink with only the amount of water you need.

■ Don't wash your vegies with the tap running; fill the sink instead.

■ Keep a bottle of drinking water in the fridge — that way you don't waste water while waiting for a running tap to cool off.

In the bathroom

■ Take shorter showers; consider using

an egg timer to remind you how long you've been under the water. A shower uses water at 10 to 20 litres per minute. If you're after a long soak, have a bath.

■ Fit a low-flow shower head.

■ Install or convert your toilet to a dual-flush model. This can reduce the amount of water your toilet uses by up to 60%. (A plastic dual-flush cistern costs around \$100, plus installation costs.)

■ A leaking toilet can waste 16,000 litres a year — even if you can't see or hear the leak. Check your toilet by putting a little food colouring in the cistern. If it appears in the bowl after a short time (without flushing), you have a leak that should be fixed.

■ Use a plug when washing your hands or having a shave.

■ Turn the tap off while you're brushing your teeth (it could save you more than five litres of water).

EVERY DROP COUNTS

There's a new labelling scheme to help you choose water-efficient appliances. Called the Water Conservation Rating, it uses three grades, from AAA (excellent) to A (acceptable), and is starting to appear on washing machines, dishwashers, showers, toilets and tapware.

It is similar to the energy-efficiency star rating, but unfortunately it's not compulsory, so you won't find it on all products. We'd like to see this system made national and compulsory, as for energy ratings. That way you could compare all products and choose the most water-efficient one that suits your needs.



In the laundry

■ Washing machines use around 65–200 litres of water for every normal cycle. Make every load count by making sure the water level suits your washing load.

■ If you're buying a new machine, look for water-efficient models. Front-loading machines generally use less water than top loaders.

In the garden

■ Don't water your garden in the heat of the day, or when it's very windy — much of the water will evaporate before it gets to your plants' roots.

■ Soak the soil, don't spray the leaves — this encourages better root growth. A good soaking every third or fourth night, rather than spraying water around every evening, is better for your plants.

■ Use a good mulch. It can prevent around three quarters of the water from evaporating.

■ Put a timer on your sprinkler, a trigger on your hose, and don't water paths when you mean to water grass.

■ Sweep paths, don't hose them down.

■ Remember that playing around under a sprinkler may be summer fun for the kids, but it can waste 1000 litres per hour. □

A DRIP COSTS DOUBLE

When the tap in Lisa and Peter's front garden started to drip, they never imagined it would almost double their water consumption.

The drip was only slight, but it was annoying, so Lisa connected the tap to their underground garden soaker hose. "I thought at least that way the garden would benefit and the drips wouldn't be wasted," she says.



When their bill for the next quarter arrived, their water usage had gone up from 78 kL to 124 kL. "At first we couldn't work it out," says Peter. "I quizzed the kids, and we checked the hot water system. Then we phoned the water board. They said it might be a leaking underground pipe, and that reminded us of the dripping tap."

The drip had become a steady dribble and cost them more than \$30 by the time they had it fixed. "The really annoying thing was that when I mentioned it to the plumber who was working on our extension, he replaced the tap in less than five minutes."



Neighbours

Taking your neighbours to court because of a dispute about fences, tree roots or barking dogs can be expensive, stressful and time-consuming. And it won't improve your relationship with them. Mediation can often solve such conflicts much more quickly and effectively — and in most centres the service is free.

YOU'RE CONVINCED YOUR neighbours are conspiring to make you move. They've recently bought a dog which barks day and night and keeps wandering into your backyard; their kids repeatedly kick their new football over the fence — and then the brats trample over your carefully tended flowerbed to retrieve it; their eldest son is harassing your teenage daughter; and, to cap it all off, while you were out, they butchered your beloved gum tree simply because a couple of branches shaded their yard. You feel like declaring war, but you know they're not going to retreat — like it or not, you're stuck with your neighbours for the foreseeable future. So what can you do?

The first thing to do is to try to talk to them — calmly and politely — about what's troubling you. Often people don't even realise they're causing a problem and will try to improve the situation if your approach is friendly rather than hostile. Give them a chance to tell their side of the story too.

Try to be as tolerant as possible. If, for example, you call the police after one loud party next door, you risk destroying whatever friendly relations may have existed.

Taking your neighbour to court should be a last resort; it's likely to increase their hostility and can be very costly and stressful. It's much better to try to resolve problems amicably. Even if you win the case, the underlying problem may not be solved and there are still many other ways they can continue to make life unpleasant for you. If you lose, you may be responsible for your neighbour's legal fees as well as your own.

Mediation

If talking to your neighbour doesn't work, a mediation centre may be able to help. Available in all states and the ACT, but not in the NT (see *Where you can get help*, opposite), these services can help you resolve a wide range of conflicts — from arguments about noise, children's behaviour, fences and drainage to family in-fighting and workplace disputes.

Mediation centres don't offer legal advice and they don't rely on judges or magistrates to make decisions. Established (by various levels of government and some private organisations) to help people avoid lengthy and costly legal processes where possible, they provide a place for people to talk over their problems and, with help from trained, impartial mediators, decide how to resolve matters themselves. Mediation is faster, more flexible and more informal than litigation — and in most cases the service is free.

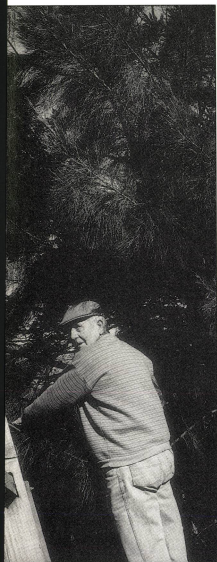
The first step is to phone the mediation centre and explain your problem. The centre will then contact the other party and ask them to attend a session at a place and time convenient to you both. If you took the matter to court, you might have to arrange time off work for yourself and your witnesses; with mediation, however, meetings can be held in the evening or at the weekend if that is more suitable for you — and you don't need witnesses because you don't have to prove what happened.

All mediation sessions are voluntary, confidential and private. At the meeting, which typically lasts several hours, two mediators listen as each party tells their side of the story without interruption. If



you or the other party have trouble using the English language, mediators who speak the preferred language or an interpreter are often available. If possible, mediators are matched with clients for language and cultural background, as well as age and sex.

Often disputes which seem straightforward actually have a number of subplots, with underlying ill-feeling festering over many years. In court, you may not have the opportunity to talk about the convoluted history of the problem. Mediators, on the other hand, are interested in the reasons for the dispute. They'll listen to both stories, summarise them and help pinpoint the issues. Taking one issue at a time, they then help the parties to discuss them and ask each



What else can you do?

Not all problems can be resolved through mediation. In some situations you may have to call the police or local council for assistance. As a general rule, the police deal with urgent, one-off problems, such as a violent argument or a noisy late-night party. Councils deal with ongoing non-urgent problems, such as barking dogs, unauthorised home extensions and backyard burning. If your complaint concerns large-scale pollution, such as noise, odours or fumes from factories, contact the environment protection authority in your area.

If all efforts to solve your problem by non-legal means fail, ask your state law society, legal aid commission or your community legal service for (free) advice about your position and what you need to do. (Mediation centres don't offer legal advice, but they'll be able to tell you how to get in touch with your nearest community legal centre — you may have trouble finding their phone number in your directory.) Ask also about the possible cost of legal action to help you to decide whether it's worth the expense, time and trouble to proceed with litigation.

Preventing problems — fences ...

Talking things over with your neighbour may help to avoid misunderstandings and prevent conflict in the first place.

Say, for example, you want to build a dividing fence. Usually the owners of adjoining properties share the costs of building or replacing a boundary fence. However, that doesn't mean you can pull the old fence down, build a new one and send the bill to your neighbour — unless your neighbour agrees to the work, you may have to pay for it yourself or you may even be ordered to demolish it. Nor should you expect your neighbour to pay half the cost of a particularly expensive type of fence. In this case, if they're not happy to pay half, it's fairer if you ask them to pay only half the cost of the sort of fence that is usually built in your area.

It's a good idea to contact your council before proceeding with your plans to check whether only certain types of fencing are permitted in your district and whether you need council approval. Then get a couple of quotes and talk to

person what they see as a solution.

Mediators don't decide who's right or wrong, or whether one party is guilty and the other innocent, nor do they award costs or impose penalties. There are no winners or losers: it's up to both parties to try to reach a settlement, which may mean both need to compromise.

Centres' records show that in about 85% of cases an agreement is reached by the end of the mediation session. Written down — in non-legal language — and signed by both parties, the agreement isn't legally binding in any way, though it does have a strong psychological effect. It doesn't guarantee that further disputes won't occur — but if they do, you can always arrange for another mediation session.

WHERE YOU CAN GET HELP

ACT

Conflict Resolution Service

Canberra — phone (06) 257 5611.

New South Wales

Community Justice Centres

Sydney City, Manly-Warringah and Hornsby — phone (02) 268 3133.
Bankstown — phone (02) 790 0656.
Campbelltown — phone (046) 29 9715.
Penrith and Blacktown/Mt Druiitt — phone (047) 32 1933.
Bourke — phone (068) 72 2355.
Moree — phone (067) 66 3222.
Newcastle — phone (049) 29 1211.
Wollongong and Wagga — phone (042) 28 0433.

Northern Territory

No service available yet.

Queensland

Community Justice Program

Brisbane — phone 1800 017 288.
Cairns — phone 1800 671 680.
Rockhampton — phone 1800 817 927.
Townsville — phone 1800 809 605.

South Australia

Community Mediation Service

Norwood — phone (08) 362 1199.
Brompton — phone (08) 340 1982.
Christies Beach — phone (08) 384 5222.

Tasmania

Community Mediation Service

Hobart — phone (002) 31 1301.

Victoria

Disputes Settlement Centre

Camberwell — phone 1800 658 528 or (03) 9603 2550.

This centre serves the whole of Victoria, but mediators are located throughout the state, so meetings can be arranged locally.

Western Australia

Gosnells Family/Neighbourhood

Mediation Service

— phone (09) 398 1455/1466.

Citizens Advice Bureau, Perth

— phone (09) 221 5711 — may charge a fee for mediation.

Bunbury Community Legal Centre

Mediation Service

— phone (097) 91 3206.

your neighbour about what you want. Before any work begins, you should both sign a written agreement which details the type of fence to be built, its length, height, position and cost, as well as arrangements for building and paying for it.

If your neighbours disagree with your plans, ask what they dislike about your proposal and see if it's possible to reach a compromise. If they refuse to talk or use a mediation centre, be prepared to take your case to court. Ask them to state their objections in writing, and if they don't reply (usually within 21 or 30 days), and neither your attempts to negotiate with them nor mediation are successful, apply to your local court for a ruling.

If your neighbour argues about the location of the fence and the property boundary, inform him or her — again,

in writing — that you intend to have the property surveyed. A licensed surveyor will mark out the boundary according to the land title documents.

... And trees

Tree branches and roots are another common cause of conflict between neighbours, and again problems can often be prevented. For example, if you're planting trees on your property, get advice from your local nursery about the most suitable species for your neighbourhood. Some trees have large root systems and may cause problems if planted too close to walls, pipes or driveways. You can find out where your water and sewerage pipes are located by inspecting your area's plan at your local water authority.

Avoid making enemies of your neighbours — consult them before attacking

their trees. Although you have the right to lop off branches of your neighbour's tree that hang over your yard, you're asking for trouble if you prune the rest of the tree without getting their permission first. If you chop down overhanging branches, the wood and any fruit on the branches is rightfully theirs — but they probably wouldn't appreciate your tossing a heap of rubbish over the fence. Chat before you act!

If the roots of your neighbour's tree crack your pipes or driveway or cause other damage to your property, they will generally be responsible for the cost of repairs. They are more likely to co-operate and pay up if, instead of flying into a rage and thrusting a repair bill under their nose, you approach them in a friendly manner and try to negotiate a settlement. □

FENCE OFFENSIVE

The trouble started when Ted — who had been living in Eucalyptus Street for 25 years — asked his new neighbour Joe to share the cost of building a 1.8 m high Colorbond fence. Joe said he didn't want a fence that high — he didn't want to admit he couldn't afford any new fence. All his money went on supporting his wife and his twin baby daughters as well as his family back in Malaysia. But instead of talking over the issue, the two men ended up shouting at each other.

Things got worse after that. Ted's son Sean and his mates started repairing Sean's car in the street at night. The thumping rock music, the revving of the engine and shouting of the boys above the din woke the children and infuriated Joe and his wife.

But it was only when Joe, in a rush to get to work, discovered Sean's car parked across his driveway that his simmering anger boiled over. He banged on Ted's door and the ensuing shouting match when Ted emerged ended in fisticuffs.

Ted's wife called the police. They didn't lay any charges but advised Joe and Ted to keep out of each other's way. One of Joe's friends advised him to go to his local court and apply for a restraining order against Ted. He did so — and discovered Ted had already taken out an order against him.

In court, the magistrate adjourned the matter. She said she believed Ted and Joe needed to resolve the problem between themselves and advised them to attend a mediation session. They complied and made an appointment at their nearest centre.

The mediators helped Joe and Ted to look at the underlying issues and to consider their real needs and feelings. Joe realised they both had problems understanding each other when they



were angry and shouting. For the first time, instead of arguing about the fence, they were able to listen to each other. Joe talked frankly about his financial worries, so that Ted accepted he wasn't just being difficult, but he really couldn't afford the cost of half a new fence at that time. Joe suggested they could mend the existing fence for the time being and offered to do the necessary work on it. He agreed to let Ted know in six months whether his financial situation had improved so a new fence could be built.

Joe also explained to Ted why the noise of Sean's motor repairs was such a problem for his wife and children. Ted promised to speak to Sean and to encourage him to do the repairs during the day at weekends, further away from Joe's house.

Both men acknowledged they hadn't meant the situation to end in violence and that neither wanted to pursue court action. They agreed that in future they would choose a suitable time to talk to each other if anything went wrong.

Getting rid of unwanted hair

Fashion dictates that women should have smooth, hairless faces, underarms, legs and 'bikini lines', even though everyone naturally has some hair on their face and body.

In the quest for the sleek, hair-free look, you may have tried shaving, tweezing, waxing, creams, lotions and electrolysis. But none guarantees immediate, permanent removal of all excess hair; some can be quite painful; some are relatively expensive, especially if you need to repeat the process frequently; some are messy; and some can leave you looking like a plucked chook.

Here's an overview of what's available.

Shaving

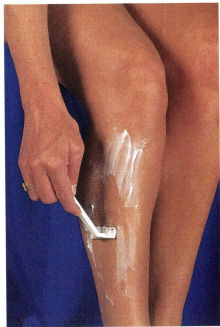
SHAVING IS THE MOST POPULAR WAY to remove unwanted hair: it's quick, cheap and painless (unless you cut yourself!). Electric shavers don't nick the skin, though they can cause some discomfort if hairs get caught in them. Both methods can cause skin irritation.

The big drawback with shaving is that stubbly regrowth appears within a couple of days. However, contrary to what some people believe, shaving doesn't make hair regrow thicker or faster. No method of hair removal does. How quickly and thickly your hair grows depends on your genes, age and sex, as well as the type and location of the hair (as a rough generalisation, hair grows about 0.35 mm a day). Regrowth simply feels coarser and bristly after shaving, because the razor has cut the thin, naturally tapering end of the hair.

Cost

Disposable razors: From around \$2 for a pack of six.

Electric shavers: From around \$50 for a battery-operated model and around \$70 to \$100 for one that's mains-operated.



Waxing

WAXING LEAVES YOU HAIR-FREE FOR longer than shaving or using depilatory creams and it leads to softer regrowth, because it pulls hair out by the root. However, that means waxing can be quite a painful process, depending on your sensitivity to pain and how willing you are to tolerate discomfort. A lot of women say you get used to it.

Cold, warm (sugar-based) and hot (oil-based) waxes are available. Cold wax strips don't need preparation and they're not as messy as warm and hot waxes. You can buy mini strips for small areas, like the face.

Hot wax usually does the most efficient job, as it opens up the pores and grips the hair better, though it can be fiddly to prepare and apply, and may burn your skin if it's too hot.

Warm waxes are popular for home use: you heat up the wax on the stove or in the microwave, apply it with a spatula and pull off the water-soluble mixture immediately with cotton strips (which can be washed and reused). As with hot wax, it can be difficult to maintain the mixture at the correct temperature for easy application and removal, and you need to take care not to overheat it.

Home waxing is cheaper than having salon treatments. However, you may find the extra expense of a professional

treatment is worthwhile: it saves you messing about preparing the wax, and it's generally quicker, easier and less painful for someone else to rip off wax strips in one hit than for you to inflict slow torture on yourself.

Waxing can leave your skin looking plucked and red for some hours afterwards. Regrowth generally appears within three weeks or so, but some people may not need to re wax for up to eight weeks. Constant waxing can weaken hair roots, so if you wax regularly (in winter as well as summer), you may find regrowth tends to thin out over time.

For best results, hair should be at least 5 mm long before waxing again, which may be a particular problem for dark-haired women for whom even short regrowth may be obvious.

It's best not to wax large areas of your face. It's normal to have fine facial 'down' and you may develop shiny, bald spots if you wax more than just small areas which have long, coarse hairs.

Pulling hair out by the roots may damage the hair follicle and cause the hair to grow back crooked, which can result in ingrown hairs. Scrubbing the waxed area with a loofah may help prevent them.

There is also a risk of infection with waxing, so don't wax abrasions or irritated skin. The wax may become contaminated too, so make sure fresh wax is used each time, particularly if you're having salon waxing.

Cost

Warm sugar-based wax: Around \$14 for 375 g — enough for about three treatments to the lower legs (though of course with any of these hair-removal preparations, the amount you need will vary according to the size and hairiness of the area being treated and how thickly you apply them).

Strip wax (cold): From around \$11 for 16 strips (sufficient for one or two treatments to both lower legs).

Salon waxing:

Prices vary greatly, so shop around.

Full-leg (both legs): From under \$20 to over \$40.

Half-leg: From around \$10 to over \$20.

Bikini line: From under \$10 to around \$20.

Underarms: From under \$10 to around \$15.

Depilatories

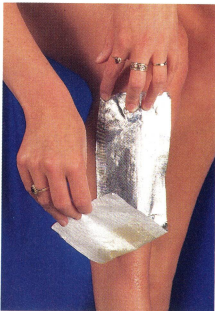
DEPILATORIES CONTAIN A CHEMICAL called thioglycolate, which breaks down the chemical bonds of the hair and weakens it, allowing you to simply wipe off the hair along with the cream after five or six minutes. You may find them smelly and messy to apply, though some brands have roll-on applicators.

Make sure you test your skin's reaction on a small patch of skin first and don't proceed with the treatment if it gives you a burning or tingling sensation or leaves a rash or swelling. Even if you don't have a reaction to the patch test, don't leave the cream or lotion on for longer than the recommended time, as it can irritate your skin.

Hair grows back within a few days. Regrowth tends to be somewhat softer than after shaving.

Cost

Around \$5 for 75 g (roughly two treatments to the lower legs).



Electrolysis

ELECTROLYSIS IS THE ONLY PERMANENT method of hair removal. A fine needle is inserted into the hair follicle (the casing around the hair root), using the hair shaft like a guide wire, and an electric current is passed down the needle to destroy the root.

It's a slow process: only about 75–100 hair follicles can be treated in one 20-minute session, so it's most practical for small areas, such as the face. If you wanted to have hair-free legs using electrolysis, it could take around three years of frequent, long treatments (perhaps an hour a week) — which would be prohibitively time-consuming and costly for most people.

Even for small areas, several treatments may be needed to stop regrowth. The number of sessions you'll need depends on several factors, such as how thick and strong your hair is and your skin type, as well as the skill of the operator.

Electrolysis can be painful, especially if you have sensitive skin. It can also cause scarring if the beautician isn't skilled in the technique, the current is too strong or if your skin is prone to scarring.

If correctly used, the needle shouldn't pierce the skin and cause bleeding and scabs. However, because the needle is pressed against the skin, there is a risk of infection with electrolysis, so make sure the salon you attend is clean and hygienic and that disposable needles are used.

Anyone can set themselves up as an electrologist in Australia and there is no

professional association, so to reduce the risk of choosing a less than competent beauty therapist, ask plenty of questions before committing yourself to treatment (such as what training and experience the electrologist has had, exactly what the treatment will involve and what results you can expect, given your skin and hair types). If you have doubts about their expertise or you're not comfortable with the salon, go elsewhere.

Cost

Varies widely depending on the salon and the length of the treatment. Expect to pay at least \$1 a minute (treatments generally last between five and thirty minutes).

Epilators

EPILATION IS ANOTHER WORD FOR hair removal. Epilators have rapidly rotating discs which pluck hairs from their roots like multiple tweezers. This method can be quite quick, once you get the hang of it — and if you're brave. You may find yanking out hair like this can be very painful — though new models are said to inflict less pain than those we reported on in 1990.

You can use these devices on very short hair, and regrowth (which takes three to six weeks) is softer than after shaving. As with waxing (and ordinary

tweezing), you may have to contend with the plucked-chook look for some hours afterwards, as well as the possibility of developing ingrown hairs.

Cost

From \$60 for a mains electric model to \$140 for a rechargeable battery-operated one.

Bleaches

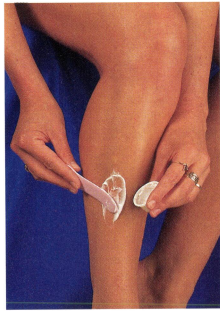
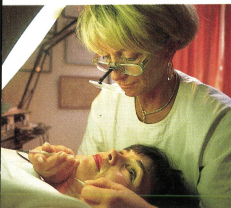
IF YOU'VE GOT DARK HAIR, YOU might consider using a bleach to lighten it so it's less obvious, as an alternative to removing unwanted hair on your face or body.

Bleaching can be messy as you usually have to mix bleach and activator creams first. As with depilatory creams, you need to do a small test patch first and wait 24 hours to ensure the product doesn't cause any irritation. Bleach may sting and irritate your skin if you leave it on for longer than recommended in the directions.

How often you need to repeat the treatment depends on your hair growth rate (typically every three to four weeks).

Cost

Around \$18 for 40 g (enough for about six applications to the forearms or one treatment to both upper and lower legs).



Zapping hair at home

Do home hair removal kits work?

PARTICULARLY IF YOU'RE SELF-conscious about excess hair and feel beauty salon treatments are too expensive, you may be tempted to buy a 'kit' so you can get rid of troublesome hair in the privacy of your home, whenever you want to. But do they really work? We tested three electric hair removal kits to find out — and unfortunately the answer seems to be no.

For our small trial, seven volunteers used the three devices on 1.5 cm squares on their legs. All volunteers had practice runs with the kits to become competent using them before the trial began. Using a magnifying glass, we counted the number of hairs in each square before and after treatment and once a week for six weeks. We also photographed the squares before and immediately afterwards, as well as one and six weeks later.

(We used legs rather than faces just in case there were any problems with the kits — we didn't want to embarrass our trialists. However, the kits are definitely designed to be used on smaller areas such as the face; attempting to remove

all the hair from your legs with any of them would be practically impossible.)

HOW ARE THEY SUPPOSED TO WORK?

Of the three kits we tested, only the ONE TOUCH model claims to remove hair by conventional electrolysis (see page 19). The ELYSEE and FINALLY FREE devices use 'electronic tweezers', which you press down on the hair shaft, in place of the ONE TOUCH styler or needle, which is inserted into the hair follicle.

The ELYSEE tweezers are said to work by "radio frequency energy", while the FINALLY FREE model uses what it calls "NU-Trollysis", a method "that uses dry energy which is directed through the hair shaft to destroy the root".

But dermatologists we spoke to doubted that electronic tweezers could work. Hair, they pointed out, is a poor conductor of electricity, and for an electric current to remove hair effectively and permanently, as is possible with electrolysis, the current must be directed into the hair follicle.

HOW EASY ARE THEY TO USE?

You need lots of practice and patience to be able to use these kits properly. Our trialists found it could be quite time-consuming and tedious pressing down on tweezers or holding a needle in place for at least 15 to 30 seconds for each hair.

We found the ELYSEE electronic tweezers relatively easy to use, though it was sometimes difficult to grip short hairs. The FINALLY FREE electronic tweezers have quite narrow tweezer heads, making it more troublesome to grip hairs and maintain electrical contact than with the ELYSEE model.

The ONE TOUCH device was not only equally time-consuming to use, it was also the most awkward to handle. Directing a needle to the base of a hair follicle requires considerable skill, coordination and patience. Our volunteers had enough trouble pinpointing hair follicles on their legs for our test. To apply the needle to your face (where you're more likely to use electrolysis) would be even more difficult, as you need to use a strong light and a magnifying mirror (which means you have to do the operation in reverse), and you won't have the advantage of special magnifying glasses



ELYSEE

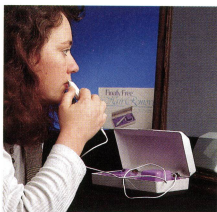
Electronic tweezers

Price: \$129 (plus postage)

Advertised in mail order catalogues and magazines and also available through Morley House Direct Marketing, PO Box 149, Moorabbin 3189; phone 1800 33 1370.

■ Relatively easy and painless to use, but we found more than 50% regrowth after six weeks. Normal tweezers are cheaper and probably work just as well.

■ Not recommended.



FINALLY FREE

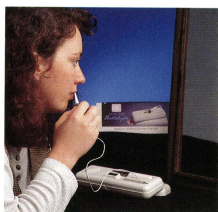
Electronic tweezers

Price: \$165 (including insurance, postage and handling)

Advertised in magazines. Distributed by Havenlist, PO Box 6800, Silverwater 2128.

■ Poorly designed tweezers make it difficult to remove any hair with this very expensive kit.

■ Not recommended.



ONE TOUCH

Battery-operated electrolysis

Price: \$89.95

Available from department stores. Smaller version available through some mail order catalogues for around \$70 plus postage and handling.

■ Needle insertion difficult, can be painful and may leave marks on the skin for up to two weeks. We found more than 50% regrowth after six weeks.

■ Not recommended.

Safety

which many professional electrologists use. It's also particularly difficult to isolate hair follicles at the side of your face or under your chin.

We asked a beauty therapist trained in electrolysis to use this device on her own face. Even though skilled in the technique, she found it difficult to insert the needle in the direction of the hair without a magnifying mirror and high-powered lamp. (It's important for insertion to be at the correct angle along the hair shaft for effective results.)

Clumsy probing and incorrect insertion can add to the discomfort of electrolysis — our trialists found it could be quite painful. Using the electronic tweezers, on the other hand, didn't hurt at all.

ARE THEY SAFE?

Our volunteers were initially rather nervous about applying the ONE TOUCH needle and an electric current to their skin — and with good reason. Electrolysis can be not only quite painful, but it can also cause skin discolouration and scarring if the operator isn't skilled in the technique. A week after treatment, all our trialists still had red spots on their skin at the stylist insertion points, which persisted in some cases for up to two weeks.

Because the ONE TOUCH machine uses a needle, there is also a risk of infection. The instructions do warn that people shouldn't share the same needle and that it should be disinfected before each use. However, people don't always

follow instructions and they may not disinfect the needle properly.

The two tweezer methods don't pose the same risk of skin damage or infection, as you're not likely to pierce the skin with them.

DO THEY REMOVE HAIR EASILY?

Most of our trialists found they could eventually remove hair with the ONE TOUCH device, though sometimes they needed to hold the styler firmly in place for longer than 15 seconds and repeat the treatment.

Most could also remove hair with the ELYSEE electronic tweezers. However, although hairs sometimes slid out easily without resistance (as they're claimed to), often some pulling was needed, which suggests hairs may have been plucked.

Five of our volunteers were unable to remove any hair with the FINALLY FREE kit, and the two who did reported that they needed to tug on the hair to remove it (in other words, it was plucked).

DOES HAIR GROW BACK?

The ONE TOUCH box says its "gentle, safe, fast and guaranteed effective" method "removes unwanted hair forever". Well, in our test, six weeks after the not-so-gentle and rather painfully slow treatment, at least half the hairs had grown back — which could hardly be described as "effective".

Similarly, with the ELYSEE electronic tweezers — also claimed to be a "permanent hair removal system" — six weeks after treatment, more than half the hairs removed had grown back. The FINALLY FREE tweezer method doesn't claim to be permanent — but it was difficult to remove any hair with it in the first place.

- Don't use hair removal products on inflamed, broken or sunburnt skin.
- Don't use depilatory creams or bleaches near the eyes or vagina.
- Always do a patch test 24 hours before using a depilatory cream or bleach. Wash it off immediately if you develop a rash, swelling, tingling or burning.
- If you have a chronic skin problem, diabetes, varicose veins or some other medical condition which could make you prone to skin damage and infection, consult your doctor before using hair removal products.

Indeed, the US Food and Drug Administration has warned that electronic tweezers are unlikely to remove hair permanently and that ordinary tweezers are likely to work just as well — at a fraction of the cost. Our experts agreed.

The ONE TOUCH kit uses conventional electrolysis, but it's questionable whether this small, battery-powered machine could generate sufficient electric current to be able to remove hair permanently.

So for permanent and relatively painless hair removal, we think you'd be better off consulting a beautician trained in electrolysis than using any of these three home kits.

ARE THEY WORTH BUYING?

In a word, no. We found the kits very time-consuming to use (roughly half an hour for a 1.5 cm square) and our trialists had an unacceptable rate of regrowth or could not remove hair at all. All are also quite expensive. Other home and salon treatments may work out considerably cheaper and will probably give you better results.

Magic creams

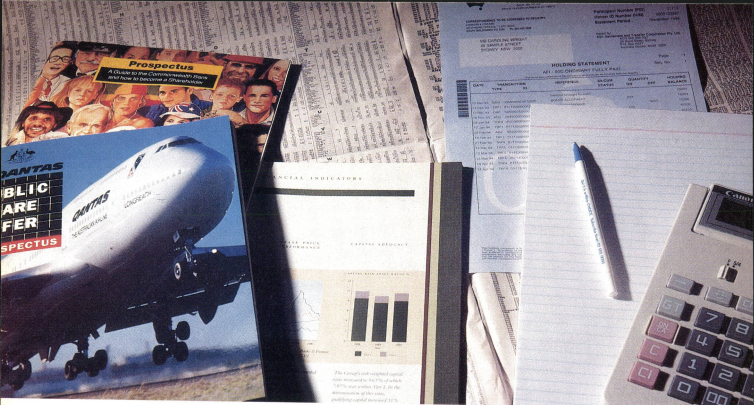
Be suspicious of miraculous claims for hair-removing creams. Depilatory creams can only remove hair from just below the skin surface. They can't work down as far as the root, retard regrowth or remove hair permanently.

"Dr Michael's Hair Removal Formula heralds a new generation in depilatory products," says a leaflet advertising Dr Michael's skin products, available through Morley House Direct Marketing. The cream is claimed to work by "dilating the hair follicle, dissolving the hair right down to the root and retarding the regrowth".

When we contacted Dr Michael for an explanation of what was in the cream that made it so special, he said it was a secret formula. We asked for scientific evidence to support the company's claims about this "scientific breakthrough in hair removal". Weeks later, despite promises that material would be sent to us, we're still waiting for any information.



The ONE TOUCH home electrolysis machine left marks on all our trialists' skin. These spots were photographed one week after using the device. Our volunteers used the device only on a 1.5 cm square on their legs. Imagine how obvious such red spots would be on your face — which is where you're more likely to use electrolysis.



Understanding shares

When interest rates are low and property is in the doldrums, investors turn their eyes to the stockmarket.

Shares form a major component of a balanced investment strategy — do you know how they work?

YOU MAY ALREADY BE INVESTING in shares (or 'stocks') without even knowing it — chances are your superannuation fund has placed some of your money in shares. Or you may have invested directly in shares or inherited a share portfolio from a relative. Whichever way you got into the share market, it's important to know how the system works and how to use it to your advantage.

Who owns shares? Either directly or through a managed fund, one in five Australian adults does. And it's not just the wealthy who are investing. In fact, 70% of all individual shareholders have an annual income of less than \$40,000.

The stockmarket

The stockmarket is an investment marketplace. A company which wants to raise money (capital) to carry out its plans can seek to be 'listed' on the Stock Exchange. To do this, the company must prepare, in exacting detail, a report (called a 'prospectus') on its financial position, prospects and intentions, and fulfil the requirements of the Stock Exchange and the government corporate

watchdog — the Australian Securities Commission (ASC).

The public can then be invited to buy into the business, by paying for shares (also known as 'equities') in the company.

In the past, the company always issued a share certificate ('scrip') to the investor, recording ownership of part of the company. Now you have a choice of a share certificate or a CHES 'holding statement' (see above right). With CHES you don't have to worry about losing share certificates or having to get certificates to your broker before making a sale.

As a shareholder you get to vote at the election of directors and on other important issues. If a profit is made, the company can decide to plough it back into the business or distribute it to the shareholders as cash (called a 'dividend') or as extra shares from dividend reinvestment plans. The other way of making money from shares is if their price goes up and you sell and make a capital gain.

Why is there a stockmarket?

The stockmarket exists for two main purposes. It's mainly there to assist in

CHESS HOLDING STATEMENT

Your CHESS holding statement (which replaces share certificates) shows your shareholding and its history.

Name of stock

Your name and address
(as holder of the stock).

Transaction type:

'BON' means bonus share allotment,
'TRF' means market transfer
(such as sale or purchase).
Codes are explained on
the back.

SPONSORING PARTICIPANT
(SAMPLE FIGURES LIMITED)

Participant Number (PIN)
Holder ID Number (HIN)
Statement Period

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Holder identification number (HIN):
Quote this number in your dealings
with the company. In other situations,
treat this number as confidential.

Holding balance: Progressive total.

Quantity on/off:

'On' is a purchase, 'off' is a sale of
stock from your holding.

Ex/cum status:

This will indicate whether the
transaction carried with it any
right to a dividend payment.
'Cum' means yes, 'ex' means no.

raising capital for new ventures — to develop an idea, build a factory, explore for oil and so on. It takes spare cash from the community and puts it to work. Secondly, it enables investors to turn their investment back into cash by bringing sellers and buyers together in a controlled marketplace. Market prices are determined by supply and demand.

The stockmarket is not a single, homogeneous entity. It is divided into several sections including Mining and Oil, Industrial, Options and Futures. The main stockmarket trades in the first two of these — Mining and Oil (which is self-explanatory) and Industrial, which includes every other type of business, from banking to manufacture and retailing.

The rest is a risky business for the small investor. This includes the options and futures markets, where more volatile speculations on future prices take place. See the *Glossary* on page 25 for more information.

Listed companies are mostly 'limited liability', which means stockholders' liability to pay debts if the company goes under is limited to the total face value of the shares.

A share may be fully paid or part-paid. In the case of part-paid shares, if a company needs money it may 'call' for its shareholders to pay the balance of the price of the share or a further instalment. Alternatively it can raise money by issuing more shares or rights to buy shares, or by borrowing money from the public by issuing a debenture (see *Glossary* for an explanation).

A good investment?

Historically, the Australian stockmarket appears to have been a good investment as it has steadily increased in value (see Figure 1 on page 24). A guide to this growth is seen in the All Ordinaries Index, which charts the daily rise and fall in value of more than 300 major listed stocks. These shares represent about 93% of the market by value and 97% by turnover.

From Figure 1 you can see there have been periods of boom and bust, though in the long term there has been steady growth. If a company manages to stay afloat and an investor is prepared to hang onto shares and ride out a collapse in the market, he or she should see a

return to good share values — but this could take four or more years.

The market has its attractions over fixed-interest investment (money in the bank, term deposits and the like). Figure 2 overleaf compares \$1000 invested in the stockmarket (based on the All Ordinaries Index), with the same amount placed in government bonds. (All graphs were compiled by the Australian Stock Exchange.)

The attraction of the stockmarket as a home for part of your investment is the potential it offers for keeping your money up with the value of the economy.

Of course, there's no guarantee. What the All Ordinaries Index doesn't show you is the companies which have failed. The statistics are said to have an 'upward bias', which may hide people who have done their dough entirely.

Choosing a good stock

There's no foolproof way of telling which investment is going to flourish and which will languish, but there are indicators that can help you work out whether a company is healthy or in trouble. The comprehensive listing of

Figure 1. All Ordinaries Index

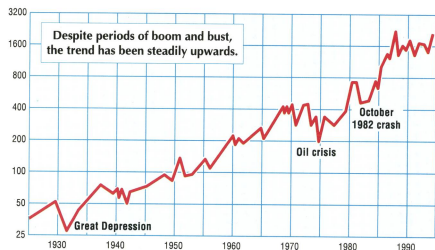
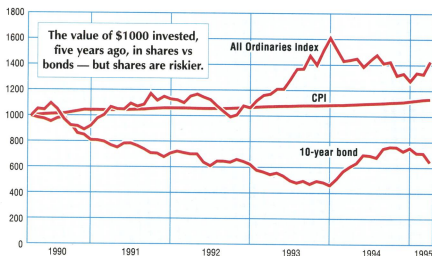


Figure 2. Investing in shares vs government bonds



the sharemarket in newspapers gives these indicators, or they can be drawn from the company's annual report.

If you intend investing in the stock-market it's prudent to know how to read newspaper listings and annual reports for yourself. But if you turn to the stock-market section of the daily newspaper you'll find a bewildering mass of detail, set out in columns and rows of figures. And much of the information in annual reports is very technical or simply self-promotion by the company.

However, important information is disclosed in them which, with a little effort, gives the main indicators used by stockbrokers in reading the corporate pulse. If you're interested you can find a discussion of their meaning and use in *Newspaper listings and annual reports*, right.

Delving into the annual report

Apart from the figures, much other valuable information is contained in the annual report.

There is a list of the directors and details of any other directorships they hold. For example, a director of Future Prospect Limited may also be a director of Old Faithful Limited — there could be beneficial links between the two companies.

There is a list of the largest shareholders. Look for well known names and successful corporations — if they're investing, the company must have passed their analysis.

In the general text of the annual

GLOSSARY

Bear: A bear market is pessimistic or cautious, with falling prices.

Bonus shares: Shares issued to existing shareholders without charge, in ratio to the number of shares already owned. For example, one free share for every five shares already held.

Bull: A bull market is optimistic, with a high turnover and rising prices.

CHES: The computer-based system of documenting share ownership and transactions that has largely replaced original share certificates — see page 23. CHES stands for Clearing House Electronic Subregister System.

Company float: A company is floated when it offers shares to the public for the first time, before it is listed on the Stock Exchange. See *Company floats* on page 27.

Contributing share: A contributing share is not paid up to its par value (see below). Periodically the company may make a call for shareholders to pay part or all of the outstanding balance.

Debentures: A company can raise funds by borrowing money from the public. One type of loan is called a debenture; it may be secured against the assets of the company.

Dividend: This is a cash return paid by a company to shareholders out of its net (after-tax) profit. It may be paid once or twice a year, or not at all. If you're buying shares at the time the dividend is being paid, it's important to know if you're getting the dividend as well. The shares are described as 'cum' (with) dividend or 'ex' (without).

Dividend imputation: Some companies pay dividends which will not be taxed as income if the shareholder's highest ('marginal') tax rate is below the company tax rate (36%). This offers special value to pensioners and others on low taxable incomes — see page 27, *Tax implications*.

Dividend reinvestment: Rather than taking your dividend as cash you may be able to take its value in further shares, saving stamp duty along the way. In 1994 \$3.7 billion was reinvested this way.

Equity trusts: These are managed funds which invest in the stockmarket. By purchasing units in the fund you participate in the fortunes of that investment. The great advantage is that by joining with other investors in this way you are able to spread the risk by buying shares in a large number of companies.

report, look for the company's prospects. Is it expanding? Is there a sizable research and development program? Has the company operated to budget? What assets does it own? Good management will give a credible explanation for both good and bad events.

When to buy? ... When to sell?

The trick, of course, is knowing when to buy and when to sell. It's usually too late by the time the news is in the press. When your friends are all talking about buying shares in a particular company it's probably time to sell!

Keep your ears open for changes in the following indicators:

■ **Overseas indices:** On the TV and radio news you'll hear about movements in share price indices like Hong Kong's Hang Seng, Japan's Nikkei and the US Dow Jones. If there's a big fall or rise in one of these, it bears watching for the local effect.

■ **Interest rates:** Interest rates affect the availability of investment money. Low interest rates encourage businesses to expand (financed by loans) and may push share prices up as speculators invest in the market.

■ **Wages and industrial relations or legal decisions:** Anything that may affect the running costs and profitability of the business community — or one company in particular (such as the closing of a mine) — may pull the share price around.

■ **Value of the Australian dollar:** When the value of our dollar falls, it makes our exports more attractive, but raises the

NEWSPAPER LISTINGS AND ANNUAL RECORDS

Financial newspapers provide a summary of market trading for investors like this.

Stock	Move	Last Sale	Vol 100's	Buy	Sell	Year High	Year Low	Div Yield	P/E Ratio
Capcount units...		.81	321	.81	.87	.87	.69	8.40	11.9
Cape Range ds...		.32	1020	.32	.34	.65	.28		
Capguard		3.20		3.15	3.23	3.25	2.75	6.56	15.2
Capitalln		.09		.12	.19	.56	.08		
Capital P new...	+02	2.30	47	2.30		2.35	2.13		
opt96		.04		.04	.05	.20	.02		
units	+01	2.37	478	2.36	2.38	2.58	2.13	7.85	12.7
Carlton	+01	1.21	20	1.21	1.25	1.31	1.00	4.13	14.3
Carlton I		14.00	100	13.70	14.50	15.50	10.00	.96	30.8
Capshare		.43	100	.43					

■ The record for each stock begins with movement up (+) or down (-) in the previous day's trading, followed by the price of the last sale and the number (volume) sold.

■ Next comes the price the latest buyer wants to pay and the price a seller is prepared to accept for the stock. There is usually a gap.

■ The year's highest and lowest sale prices are a good guide to recent history.

Finally this listing gives two figures that investors can use as indicators of a company's performance and as a means of comparing it with others. You need to check the figures regularly and note their trends.

■ **Dividend yield:** The dividend is the income you receive when the company pays you out of its profits. 'Dividend yield' simply tells you what percentage of the current market price (the 'last sale' column in the listing above) the last paid dividend was. It's intended to give an investor some idea of the income they could expect (before tax), based on today's share price. So, for example, for Capguard in the listing above, the dividend yield is 6.56% of \$3.20, the current market price.

A high dividend yield means you get more income for your outlay. However, a low yield doesn't necessarily mean the company is performing badly; it could be putting the profits back into the business instead of paying dividends. This could mean the company is a good prospect for earnings in the longer term.

■ **Price to earnings (P/E) ratio:** This ratio converts information about different companies to a common base, and can help you compare their share prices, as long as they're in the same industry. It shows a company's share price as a multiple of its profits, and is an indicator of how much investors are prepared to pay for shares. A high figure may mean the shares are expected to perform better shortly, while a low figure can indicate investors expect poor profits. Again to use Capguard as an example, investors are prepared to pay 15.23 times the last earnings for its shares.

Consult your broker about why a dividend yield or P/E ratio is high or low compared with similar companies.

Futures: At the Futures Exchange, manufacturers who need commodities like cattle, gold or wool, or capital (bonds, bank bills) are able to buy future stock or future capital at a price secured today. This helps businesses plan their costs and price their future produce. Futures contracts are a risky investment for the layperson; they're best left to institutions and corporations.

Marketable parcel: The market has traditionally had a preference for dealing in bundles of shares in lots of 100 or 1000, depending on the value of the shares. Odd lots can be harder to sell and have often attracted higher fees. From September 30, 1995, trading in odd lots will be abolished and the marketable parcel will become a single share. It will no longer cost more to sell odd amounts of shares.

Options: You pay a small percentage of a company's shares' value when you buy an option, and this gives you the right to buy or sell them at a specific price at a later date. A 'call' option gives you the right to buy on a specified date, and you'd sell over the option if the shares' price had increased since you bought the option. A 'put' option gives you the right to sell at a

fixed price, and you'd use it to protect yourself against a fall in the share's value. You're not bound to take up any option, so you're not committing yourself to a future outlay unless it's favourable to you.

Par: Par value is the nominal (face) value of a share when the company is floated.

Prospectus: A report prepared by a company seeking public funding. It contains details of the company, its aims, proposals, directors, the number of shares to be issued and the price. It must be approved by the Australian Stock Exchange and lodged with the Australian Securities Commission (ASC).

Rights: When a company wants to raise money, one tactic is to offer more shares to its existing shareholders at a discounted price. An example of an offer might be: "one new share at a discount for every five shares already held". These 'rights' to new shares, in most cases, can themselves be traded on the Exchange.

SEATS: In Australia, shares are traded via a computer network called SEATS (Stock Exchange Automated Trading System). This replaced trading on the floor of the Exchange; see page 26.

cost of imports (including much business equipment). Shares in different companies will respond according to how each business may be affected.

The market is also influenced by what are known as sentimental factors (including blind panic and intense greed!) which can shift the market more radically than the best-reasoned economic analysis. Sentiment and nostalgia played a role over recent years in the takeover of Arnott's and the float of the Commonwealth Bank, among others.

After you've done your analysis of the market and your stocks, there are three useful pieces of advice on when to sell:

■ You'll never go broke taking a profit (so don't regret having left some for the next buyer).

■ Before selling, always consider whether you can replace the stock with an investment of equal (or greater) quality, value or potential.

■ One of the commonest mistakes is to buy a fashionable share and then forget to sell it. Keep your mind on the job!

Blue chip buying

'Blue chip' is a term often used to describe a traditionally good investment stock. But while blue chip stocks are generally solid, stable, more reliable investments, they may be far from sparkling performers. The general rule is that security and high rewards are at opposite ends of the spectrum.

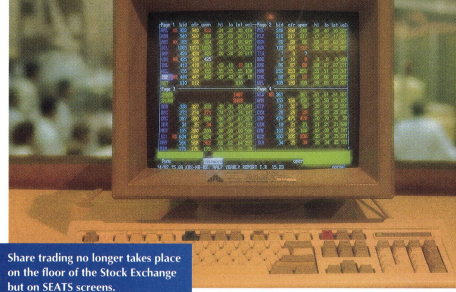
The top companies fall into two groups: those with a 'corporate culture', and those that are led by a well known entrepreneur. Many of the latter type are perceived to have been navigated to the top of the market by the personal drive and vision of a single captain such as Rupert Murdoch. One view is that such shares can never be the full 'blue chip', since their success and stability are linked so closely with one person (remember Bond and Skase).

In contrast is the company which is led by its board of directors as a whole, with an emphasis on the company — and its longevity — rather than the individuals who direct it. So the argument goes, anyway.

Going for brokers

You can't buy and sell shares on the Stock Exchange without the services of a stockbroker. What do they do, and how much will it cost?

The broker takes instructions from clients and attempts, to the best of his or her ability, to carry them out. For the



Share trading no longer takes place on the floor of the Stock Exchange but on SEATS screens.

ordinary investor, these instructions are simply to buy or sell shares. In addition, your broker will give advice on the state of the market, particular shares and possible courses of action.

As a guide, your instructions might involve:

■ A particular price ("When the stock reaches \$4.55") at which to buy or sell.

■ A particular time of the day, hoping to anticipate the 'mood' of the market (opening of trading, close of trading).

■ A contingency order ("Sell my X Ltd stock on condition that you buy Y Ltd").

■ To sell or buy 'at market', leaving the price to the broker's discretion, as being the best achievable by him or her during the day.

There are rules the broker will expect you to understand. If you want to sell shares, you should send your share certificates (if any) to the broker well in advance. Similarly, if buying, you may have to pay money into the broker's office before the stock will be bought. Discuss arrangements — and minimum commission — before doing business. Late delivery of share certificates (by the seller) or money (by the buyer) may incur a penalty.

Don't be afraid to express your dissatisfaction if your broker is consistently getting you the worst price of the day (the newspapers give daily best and worst prices, so you can check this). Brokers have a responsibility to act professionally for all their clients and they should not accept your instructions if they don't feel able to justify your confidence.

Trading on the floor of the Australian Stock Exchange ceased in October 1990 when computerisation replaced the chalk boards and shouting brokers (except for futures, which are still traded on the floor of the Futures Exchange).

Computerisation allows participating brokers to make a bid from their offices via SEATS (Stock Exchange Automated Trading System). Offers (quantities and prices to buy and sell) are listed for each share and are automatically matched and executed when a buy or sell order overlaps or equals an opposite order. A SEATS screen is pictured above.

What will it cost?

Stockbrokers work for a commission on each sale or purchase transaction. Commission is generally on a sliding scale — typically 2.5% on transactions worth less than \$10,000, falling to 2% for larger transactions. Be aware, however, that a minimum commission is commonly set. This varies widely between broking companies, from as low as \$30 to as high as \$120.

In addition you'll pay stamp duty of 0.15% on each purchase or sale of shares.

Brokers have a tradition of freely giving advice to customers and non-customers alike (hoping to get your business). A broker can't charge for advice unless the customer agrees — a broker is paid for handling transactions. So if you have a query, such as when a takeover proposition comes in the post, call a broker promptly.

In the long term, your choice of broker depends on how much money you'll be investing, what services you want (good research back-up and a newsletter are basic) and the minimum fee or commission rate for your level of business (\$100 minimum fee is equal to 10% on a \$1000 transaction!).

The National Guarantee Fund

The National Guarantee Fund will guarantee the completion of any sale or purchase of shares on the Exchange. For

KNOWING YOUR STUFF

There are many avenues for sharpening your knowledge of the stockmarket. The occasional television series is worth watching out for (the ABC regularly presents business and marketing programs) and there are endless financial columns in the daily newspapers and investment/business magazines.

However, the most thorough method involves study. Practical courses are run by the Securities Institute of Australia, and the Australian Stock Exchange presents lunchtime and evening lectures throughout the year. Some courses result in a certificate or diploma. The Stock Exchange in your capital city (except Canberra and Darwin) will have a bookshop and research library.

Larger stockbroking firms issue regular newsletters with details of investment opportunities and, in some cases, educational material for their clients.

example, if your broker sells your shares without your authority and then disappears, the fund will ensure you get a similar number back.

Company floats

When a business wants to expand it can raise money from the bank (go into debt) or get more people to buy into the business by issuing shares. When shares are first offered to the public via a prospectus this is called a float.

There have been many newsworthy floats in recent years, from the Commonwealth Bank to the GIO and Tabcorp. Not all have been good investments. Research carried out by Greg Keys for Price Waterhouse found that more than 40% of industrial company floats surveyed since 1992 had failed to reach the value forecast in the original prospectus by around 30%.

The table below shows shares in a range of company floats, with their

opening date, opening price and value on June 30, 1995. You can see there have been winners and losers.

The recent float of Qantas and the further sell-off of the government's stake in the Commonwealth Bank are sentimental favourites but require serious consideration of the pros and cons. For example, the Commonwealth Bank will no longer enjoy the unique position of having the Commonwealth Government as a major owner. Qantas operates in a highly competitive, global and cyclical industry; despite being an Aussie icon, Qantas is not a classic blue chip stock.

Shares in a float are purchased using the form attached to the prospectus. (Note: you pay no stamp duty or brokerage fee on shares purchased using a prospectus.) If you hear about an upcoming float in the media that interests you, contact a broker and get a copy of the prospectus.

Recent company floats — what are they worth now?

Company	Date of listing	Price at listing (\$)	Price at June 30, 1995 (\$)
CAMBRIDGE GULF EXPLORATION	July 8, 1993	0.49	0.47
COMMONWEALTH BANK OF AUSTRALIA	September 12, 1991	6.90	9.33
CROWN (previously Crown Casino)	March 9, 1994	1.80	1.54
GHANA GOLD MINES	June 24, 1994	0.38	0.26
GIO AUSTRALIA HOLDINGS	July 23, 1992	2.68	2.65
GREEN'S FOODS	June 10, 1993	0.70	0.50
HAZELTON AIRLINES	December 20, 1993	1.10	1.13
JOHN SINGLETON ADVERTISING	January 14, 1994	2.22	2.50
JUST JEANS HOLDINGS	April 29, 1993	1.13	1.90
MORGAN & BANKS	February 11, 1994	1.90	1.85
REBEL SPORT	April 30, 1993	0.75	0.84
SEVEN NETWORK	August 12, 1993	1.24	2.50
SYDNEY AQUARIUM	June 10, 1993	1.24	2.50
TABCORP HOLDINGS	August 26, 1994	2.30	2.91
WOOLWORTHS	July 23, 1993	2.84	2.92

TAX IMPLICATIONS

Buying and selling shares has tax implications:

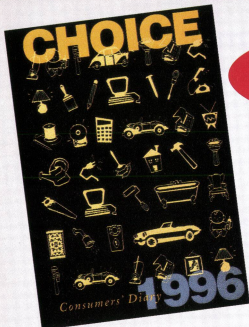
- If you sell stock which was purchased after September 19, 1985, any profit will be subject to capital gains tax, which allows for expenses and the effect of inflation on your investment ('indexation'). However, if you bought and sold the shares within 12 months any profit will be subject to capital gains tax at your current rate of tax without the benefit of indexation.
- If you regularly buy and sell shares your profit may be taxable as income but, by way of compensation, your losses may become a tax deduction.
- Dividends are usually taxable as income. However, dividend imputation may lessen the burden: see the *Glossary*.

Conclusions

Of course, it's all a risk. But a balanced spread of investments will usually include some shares because of the potential of an investment which truly reflects the ongoing state of the economy. There are also few investments which are as readily negotiable (able to be turned back into cash) and which offer a real chance to beat inflation.

If you like the idea of owning shares but don't want the hassle of managing your investment, speak to your finance adviser about equity trusts (see the *Glossary* for details). But if you're prepared to manage the investment yourself, here's a little distilled wisdom:

- Get a helpful and attentive stockbroker — ask your friends.
- Discuss with your stockbroker the degree of risk you are prepared to take.
- Read the finance press and get a feel for what excites and upsets the market.
- Read the annual reports of the companies you're interested in and work through them. Check the rhetoric against the share price (including the year's high and low), its dividend, and the other indicators mentioned in this article.
- Look for strong management: check the experience of the directors (shown in the annual report).
- Look at the major shareholders (also listed in the annual report) — are they big corporations with sound management themselves?
- Get advice as to whether you should target shares with attractive dividend imputation (see the *Glossary* for an explanation).
- Take a long-term view of your investment. If you can leave your money in the market for four or five years you have a good chance of riding out the cyclical storms. □



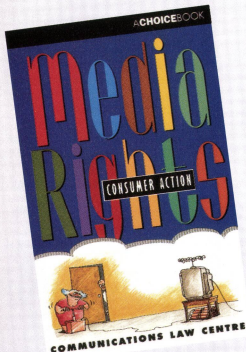
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Buy more than one diary
and receive a \$1 discount on
each additional copy.

Choice Consumers' Diary 1996

Our popular diary returns for 1996. Conveniently sized (15 x 22 cm), it features: a week to an opening; a practical spiral binding that allows it to open flat on your desk; useful information, addresses and CHOICE consumer tips; monthly expense planners; and a names and addresses section.

\$15 spiral-bound

Code: 1996



MEDIA RIGHTS Consumer Action

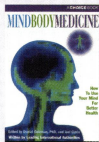
Communications Law Centre

MEDIA RIGHTS *Consumer Action* provides you with the information you need to understand and exercise your rights.

It provides factual, simple and unbiased information on newspapers, magazines, TV, community broadcasting, multimedia, pay TV, the ABC and SBS, and advertising. It includes your basic rights regarding the media, contacts for where you can go for more detailed information, and sample letters which you can adapt for your particular complaint.

\$16 (non-subscribers) \$14.50 (subscribers) paperback 176 pp

Code: MRCA



Mind Body Medicine

How to use your mind for better health

Evidence is growing that thoughts, beliefs and emotions can have a major impact on your physical well-being. In this book more than 30 scientists and scholars from the United States' most prestigious medical institutions present their findings on the interrelationships between mind and body.

\$35 (non-subscribers) \$31.50 (subscribers)

Code: MBM

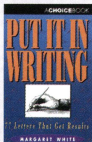


Your Health Rights

To help you in your encounters with the medical system, this comprehensive guide gives detailed information on topics such as consent to and confidentiality of treatment, access to medical records, which treatments are covered by Medicare, care of the aged and how to make a complaint.

\$10

Code: YHR



Put It In Writing

77 letters that get results

We all know an effectively worded letter can get results, if only we know our rights and how to express them. This book contains 77 well-considered, cool and authoritative letters, written by a lawyer, which can be adapted to suit your situation.

\$16

Code: PIW



Facefacts

A guide to cosmetics, skin and hair care

What do we know about the stuff we put on our faces and our hair? How does it work? What do the 'special ingredients' actually do? This comprehensive guide answers these questions and covers many other issues, including how best to care for your skin.

Code: FF



In Transition

A guide to menopause

Professor Deborah Saltman covers the issues surrounding menopause in a clear, easy to understand, non-patronising way. Topics include: your relationship with your doctor; HRT; and orthodox and alternative treatments.

\$17

Code: IT



Ecotourism & Nature-based Holidays

An innovative guide to a new sort of holiday. As well as explaining what ecotourism means, this guide gives you practical information about tour operators, resorts and other attractions.

\$17

Code: ENBH

ORDER FORM

Code	Title	Qty	Item price	Total price
Plus postage and handling (\$3 for one item plus \$1.20 for each extra item)				
				Total

Plus postage and handling (\$3 for one item plus \$1.20 for each extra item)

Total

I enclose: ☐ cheque ☐ money order (payable to the Australian Consumers' Association)

OR: I wish to pay by: ☐ Bankcard ☐ Mastercard ☐ Visa Expiry date: ____/____

Card no.

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Signature _____

Mr/Mrs/Miss/Ms _____
First name Last name

Address _____ Postcode _____

Phone (business hours) _____ Subscriber no. _____

SEND YOUR PAYMENT TO:

Australian Consumers' Association
57 Carrington Road, Marrickville 2204.
Phone: (02) 558 0099 Fax: (02) 559 3260

POSTAGE & HANDLING

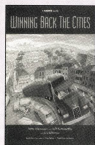
\$3 for one item plus \$1.20 for each extra item ordered. Some books may have to be sent separately to keep postage costs down. This is due to Australia Post's vagaries, not ours. Please allow 3 to 4 weeks for delivery. We process the vast majority of orders the

day we receive them, but sometimes stock replenishment means a delay while we await delivery, so please bear with us. If any order cannot be filled for a substantial length of time, we'll let you know and give you the option of cancellation.

MONEY BACK GUARANTEE

If you are not completely satisfied with your purchase, return book(s) within 30 days for full refund of the purchase price.

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Winning Back the Cities

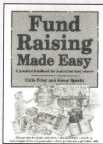
This acclaimed book has two themes — the enormous social, economic and environmental costs associated with our sprawling cities, and how we could do things so very much better.

"Worth buying at twice the price."

Queensland Planner

\$11

Code: WBTC

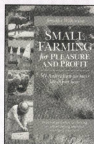


Fund Raising Made Easy

This book includes 150 ideas to help you raise funds for your organisation. It contains information about legal requirements, special activities, group travel and other novel ideas.

\$17

Code: FRME

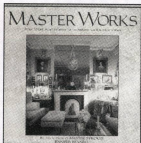


Small Farming for Pleasure and Profit

A useful and interesting guide to farming in Australia. After seven chapters of general information it looks at 50 case studies of successful Australian farms — farming everything from lavender to emus, from cricket-bat willow to angoras.

\$20

Code: SFFP

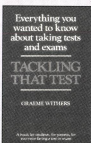


Master Works

Practical and inspirational ideas and techniques for designing and decorating furniture, walls, floors and fabrics with wonderful painted finishes. Superbly illustrated, and covering many new and old techniques, this book will inspire novice and experienced decorator alike.

\$40

Code: MW



Tackling that Test

Whatever test or exam you may be facing (school, university, college or employment), *Tackling that Test* provides invaluable advice about preparing for, and taking part in, exams. It includes practical advice and examples.

\$16

Code: TTT



Baby Games

A wealth of imaginative ideas and songs to use when playing with your child (from birth to three years).

\$17

Code: BG

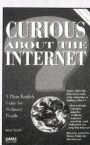


How to Stay Sane in Your Baby's First Year

A good basic guide covering all the important issues new parents are likely to face in the first 12 months.

\$17

Code: SSBY

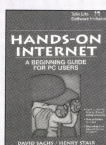


Curious about the Internet

If you're still unsure about the information superhighway and want more details before you commit yourself, *Curious about the Internet?* will help answer your questions. It includes information about the Internet, how it works, who uses it and what you can use it for.

\$29

Code: ATI



Hands-on Internet

A beginning guide for PC Users

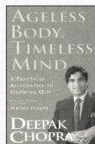
If you would rather learn about the Internet through hands-on experience, this book includes a 3.5" disk with eight on-line 'sessions'. Note: to use this disk you will need a PC and a modem and you will need to sign up with an access provider.

\$62 including 3.5" disk

Code: HOI

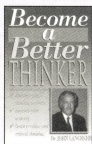
To clear space for the October catalogue the following titles are being sold out.

There is limited stock available of each title and no back orders will be taken — so if you're interested in any of these titles, get in early!



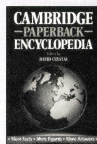
Ageless Body, Timeless Mind

\$20 Code: ABTM



Become a Better Thinker

\$15 Code: BABT



Cambridge Paperback Encyclopedia

\$25 Code: CPE



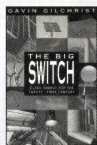
Earthworms in Australia

\$15 Code: EIA



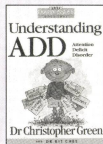
Grandparenting

\$17 Code: GP



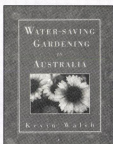
The Big Switch

\$17 Code: TBS



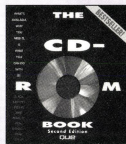
Understanding ADD

\$17 Code: UADD



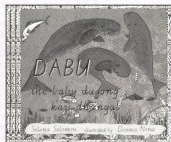
Water-saving Gardening in Australia

\$20 Code: WSGA



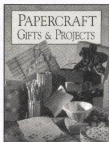
The CD ROM Book, Second edition

\$55 including CD-ROM disk
Code: CROM



Dabu the Baby Dugong

\$20 Code: DTBD



Papercraft Gifts & Projects

\$25 Code: PGAP



Woodcraft of the World

\$50 Code: WCOW



Letters

MORE PROBLEMS WITH ST GEORGE COOKTOPS

Oh my, how I related to the story of Mrs Ingersole (CHOICE, May 1995), who is stuck with a St George lemon. Mrs Ingersole may find some bitter comfort in knowing she is not alone.

Our battle with St George dates back to September 1993, when we bought a St George gas cooktop (Dual Fuel CD60 Wok-2). It was delivered some time later, due to what were described as 'quality control' problems disrupting production. With hindsight, perhaps that in itself should have started alarm bells ringing.

When the gasfitter installed the cooktop in December 1993 he told us the knob fittings were incomplete and the valves were not functioning properly — I needed to exert considerable pressure to get the burners to light. The gasfitter advised us to seek remedial action. Thus began the sorry saga.

The retailer told us to contact the Canberra St George service agent, but two service calls resulted in no change in the functioning of the knobs.

By now I had discovered that in addition to the knob problem, the cooktop's wok burner kept going out and would not re-ignite for up to 15 minutes. The agent told us a new manifold was needed and would be ordered.

Time went by and after two months we again contacted the agent, who said he was still waiting for the parts. The next time we contacted him, he advised us that he was no longer acting for St George.

We contacted Consumer Affairs and, on their advice, the retailer, which then contacted St George. St George made one attempt to contact us by phone and then let the matter lapse until we again contacted the retailer a week later. St George then told us their new agent would contact us to arrange a call. After seven months our frustration level was reaching critical point and, sensing this, St George asked for "one more chance to fix the problem".

The service call resulted in some improvement of the knob function but no improvement of the wok burner. We were

also left with three 'temporary' black knobs in an all-white kitchen and a promise that the white knobs would be ordered.

Months passed and nothing happened except that the gas jet controls deteriorated. As the cooktop lost function we lost our patience and went back to Consumer Affairs in September 1994. This was 10 months after installation and one year after St George had had use of our money. In that year, we had had to manage with an inadequate cooktop, spend hours and hours on the phone, spend days waiting at home for service calls, and had been treated with dismissal, hostility and ridicule. At no stage did St George deal with us using a customer-focused ethic. They seemed to believe that if they made it difficult and ignored us, we would get sick of it and go away.

Yes, we did get sick of it, but we didn't go away. We decided we didn't want a St George product. From that moment the battle took on a new intensity. St George suddenly said they would replace the cooktop, but that replacement would take a while as they no longer made white cooktops and would have to do a special production. They would not refund our money.

The offer of replacement came far too late; long after what was a reasonable time for St George to have effected any meaningful remedial action. Their attitude of dismissal and arrogance, and their awesomely poor customer service, which they refer to as "standing by their product", left us disgusted and wary of ever having to deal with them as a customer again.

After an unpleasant and distasteful battle, the retailer managed to negotiate a deal with St George whereby it supplied us with the cooktop of our choice and St George supplied the retailer with a new cooktop.

Fifteen months after the purchase of our cooktop it was removed — still with its mismatched knobs — and replaced by an imported cooktop. We had chosen St George because it was Australian-made. Sorry, but we weren't about to make that



mistake again. No product is worth having if the after-sales service is lacking. In St George's case, it is not only lacking, it is hostile, unprofessional, spasmodic and ultimately ineffective.

So after a long and bloody battle, resolution was achieved. The winners? Obviously we were. But also our new cooktop's manufacturer, who supplied a great product; the retailer, who despite some difficult moments stuck by their customer and achieved an outcome we were satisfied with; and Consumer Affairs, who assisted us with excellent advice.

The only loser was St George. Frustrated and dissatisfied customers who are treated badly don't just fade away. They stay angry for a long time and they tell people about their experiences. And if St George thinks that people don't listen they are eventually going to go out of business.

Oh no, Mrs Ingersole, you are most definitely not alone.

Elizabeth Swaine, Stafford James Chapman, ACT

A spokesperson at St George Appliances acknowledged the company should have been more diligent in servicing Ms Swaine's cooktop. However, he says the problems she encountered are the exception, not the norm. He said the following factors should be noted:

■ *The service agent Ms Swaine dealt with caused St George a degree of embarrassment on a number of jobs, and as a result is no longer servicing St George products. The company has appointed a new service agent.*

■ *The service department at St George Appliances has been upgraded with new and additional staff.*

■ *The cooktop Ms Swaine bought has been superseded twice, which was also a factor in the delay for spare parts.*

Send your letters to CHOICE, 57 Carrington Road, Marrickville 2204.

Where possible, please include your daytime telephone number, as we may wish to contact you direct for more information or to discuss your comments and queries.



Computing choice

What is a modem?

Adding a modem to your computer can open up a whole new world. You can connect your computer to the Internet, to a growing number of commercial information providers, or to privately run bulletin boards. So what does it take to get your computer connected?

COMPUTING IS USUALLY SEEN as a solitary pastime — just you and your computer. The addition of a modem allows you to link it to other computers via the telephone system.

A modem converts the binary (see *Word Box* below for clarification) information your computer works with into a form which can be transmitted and received over telephone lines.

Modems are classed according to how fast they transfer information. Five years ago, most modems were only capable of communicating at 2400 bits per second (bps, see *Word Box*). Today, 2400 bps is considered slow. Nowadays most modems can do at least 14,400 bps, and there is a move towards 28,800 bps modems.

Most modems come with their own case and power supply. A cable runs from the computer to the modem, and

another cable runs from the modem to the telephone socket. However, for some types of computer, there is the option of buying an internal modem, which plugs into a slot inside the computer. Internal modems are cheaper than external ones, as they don't have a case and draw their power from the computer. However, they're not as versatile as external modems, which can be easily moved between different computers.

Modems the size of credit cards are available for computers with PCMCIA slots (see *Word Box*). While slightly more expensive than other types, their small size makes them convenient to use with notebook computers.

Many new modems come with fax capabilities — so they're actually fax/modems. Because the fax/modem is connected directly to the computer, documents you create with your word

processor or other software can be faxed directly to a conventional fax machine or fax/modem-equipped computer, without the need for the document to be printed on paper first.

You'll also need some software (called a 'terminal program') to make your computer run the modem. See *What to look for* overleaf for more details.

So what can you do with a modem?

With the growth of the home computer market, there has been steady growth in the number of services available to modem users. Broadly speaking, there are three main types: privately run bulletin board services (BBS), the Internet and commercially run information service providers (some of which also provide Internet access).

■ **Bulletin Board Services (BBS)** have been around since the late 1970s, when

WORD BOX

Binary: Internally, computers use binary — a number system which is composed of only two digits (a zero and a one). All information the computer processes is converted into sequences of zeros and ones. Modems convert this information into a form that can be transmitted via a phone line.

Bit: This is the smallest unit of information a computer can deal with. It can be either zero or one.

bps: Bits per second — number of bits transferred per second. 300 bps is regarded as very slow, while 14,400 bps is considered fast.

E-Mail: Electronic mail allows you to exchange typed messages with other

users of the service you're connected to.

PCMCIA: This is a standard developed by computer manufacturers to allow easy connection of a range of devices, such as memory cards and modems, to computers.

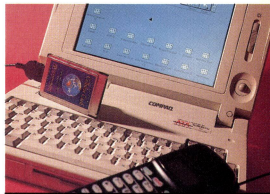
PC-compatible: This type of computer is made by a variety of manufacturers. Also referred to as IBM-compatible.

Public domain programs: Software available free of charge because it is not protected by copyright.

Web: World Wide Web — a part of the Internet which uses graphics and text, rather than text only, to present information. It also allows users to navigate the Internet using a mouse.



A modem lets you connect your computer to others via the phone lines.



A fax/modem the size of a credit card — you can send faxes directly from your computer, without having to print them first.

ON-LINE SERVICES

Thinking of subscribing to an on-line information service? Here's brief look at some of the larger ones operating in Australia. Please note that the prices quoted are a general guide only, and were correct at the time of going to press. Some companies charge extra for 'premium' services, while others offer economy off-peak rates. Please note that we haven't trialled these services.

Microsoft Network

On Australia, a joint venture between Microsoft and Telstra, is the company behind the Australian implementation of the Microsoft Network. According to On Australia, it will allow Microsoft Windows users to reach a "worldwide community of people, ideas and information" through their computer.

Windows 95 — the long-awaited upgrade of Windows 3.11, which drives many PC-compatible computers — will have built-in access to the Microsoft Network, though you will of course still need a modem. Planned services include:

- Electronic mail, bulletin boards and chat areas.
- Information services such as news, sport, stock and weather reports, products and product support, and special-interest groups.
- Public domain program libraries.

■ Microsoft product, technical and customer support information.

■ Internet access (see *Computing Choice*, July 1995)

At the time of writing, Microsoft was expecting to launch Windows 95 in late August. A spokesperson at On-Australia says it will cost around \$6 per hour to use the Microsoft Network. Because of concerns about the relationship between Telstra and Microsoft, the Trade Practices Commission says it is considering the implications of the Microsoft Network. For further information about the Microsoft Network call (02) 9934 9000.

eWorld

Billed as the "on-line service for the rest of us", Apple Computer's eWorld is designed around the Macintosh computer.

Upon logging onto eWorld, users are presented with a picture of a town square. Buildings around the town square represent the different services available. For example, you visit the post office to pick up electronic mail, or you can go to



the computer centre to find out the latest computer-related news and information.

Subscribers can air their own opinions through on-line forums and private chat sessions. Internet access is also available.

Most new Macintosh computers can access eWorld without any further software, and software is available for many older Macs. A version of the eWorld access software for PC-compatible computers with Windows 3.11 should be released by the end of the year.

Fees include a minimum charge of US\$9.95 per month, which covers the first hour of access. An hourly access charge of US\$9.95 is charged there after. The US\$ charges are automatically converted to Australian dollars through the customer's credit card bill. Because most of the hourly subscription fee covers Apple's overseas telecommunications links, subscribers may be able to save money by connecting to Apple's main computer in the USA via the Internet.

People interested in joining eWorld can call 1800 124 137 for a free starter kit.

Pegasus

Formed in 1989, Pegasus promotes itself as providing "efficient communications and access to information for all without discrimination".

The company says it specialises in the creation of Australia-wide networks for community groups, government, business

personal computers first came within reach of computer enthusiasts. They are usually run by people who have made their personal computers available for public access through the telephone system. BBS users can leave messages for each other, send and receive public domain programs (see *Word Box*), as well as play games. Some BBS are even linked to others to allow users to communicate with a wider range of people. Sometimes the sysop — system operator: the person who owns the computer and runs the BBS — may ask for a donation to help cover telephone bills and expenses.

■ The Internet is a huge global network linking millions of government, university, military and commercial computers around the world, which allows information on a huge range of topics to be shared. Until recent years, access to the Internet was usually only available to academics and university students. It has

become easier for everyone else to use it with the establishment of Internet service provider companies which, for a fee, connect your own computer to the Internet (see *What is the Internet?* in the July 1995 issue of *CHOICE* for more information).

■ Commercial on-line services are run by private companies which provide information on specific topics, and other services, to their subscribers. Most can also link you to the Internet. Usually, this type of company provides more sophisticated services than the ones you'll find on BBS or the Internet.

What to look for

Thinking of buying a modem? Consider the following points to avoid problems.

■ Don't buy a modem unless you're sure it's Austel-approved. While it's not illegal to buy or sell such a modem, it is illegal to connect it to the phone network; there's a \$12,000 fine if you're

caught. You're also liable for any damage caused to phone system.

■ Make sure the modem you buy comes with the right type of cable for your computer. Most modems available on the market conform to a common standard, meaning that with the right cables and software, they can be used with Macintosh, PC-compatible or Amiga computers.

■ You'll need some software — a 'terminal program' — to get your modem to work. These are available from most computer shops, or may come bundled with your modem. There are also good public domain terminal programs available for most types of computer, which you can get from some computer shops for a minimal fee.

■ If your modem is fax-capable, you'll also need a special program in order to send and receive faxes.

■ Buy the fastest modem you can afford. It can be very frustrating to have to wait

and people separated by distance.

Services offered by Pegasus networks include:

- Electronic mail and conferencing.
- Public and private access to worldwide environmental networks.
- Access to Internet, including the Web.
- Access to Australian sub-networks, such as CouncilNet, ArtsNet, the Public Health Network and ACS-link.

Pegasus can be reached by a local call anywhere in Australia. A \$95 fee is charged to establish an account, and there is a further monthly fee of \$25. In addition 10-20 cents is charged for each minute you're on-line. Other charges are payable for extra services. For more information call 1800 674 207.

CompuServe

Promoting itself as the world's most successful on-line service, CompuServe claims to have around three million users in more than 150 countries.

CompuServe users have access to 200 general-interest and niche publications, dozens of syndicated columnists and more than 900 entertainment, hobby, games and personal computer forums. Other services available include global e-mail, access to public domain software libraries and Internet access.

There's a monthly membership fee of \$14.50 (your first month is free), and a charge of 20 cents a minute for basic services. For more information, call 1800 025 240.

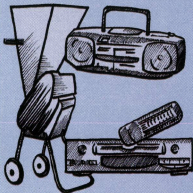
for a slow modem to do its job. We recommend that if you're planning to use the Internet regularly, you should consider buying at least a 14,400 bps modem, which can be bought for around \$300. Faster 28,800 bps modems are available from around \$500.

■ If you're buying a modem for a PC-compatible computer, you may have to upgrade your serial port — which is where you plug the modem in. Some PCs have an older-design serial port, which can't handle the higher speeds of modern modems. Fitting a serial card with a 16 550 UART chip will overcome this problem. To determine the type of UART chip in your computer, click on the 'MS DOS prompt' icon in Windows 3.11 and type MSD when the prompt appears (or just type MSD at the prompt if you're using DOS). Once the Microsoft Diagnostics program appears on screen, press 'C'. The computer will display the type of UART chip in your machine. □

SUBSCRIBER

17th DRAW

For new subscriptions and renewals received
July 1 to September 30, 1995



Our Seventeenth Draw, to be held on October 3, 1995, will have a new format. There will be two lucky winners who will choose their prizes from tests published in CHOICE, January to February 1995.

1st Prize: Chipper/shredder (January 1995) valued at up to \$830 and a VCR (February 1995) valued at up to \$500.

2nd Prize: Portable stereo (January 1995) valued at up to \$400.

These are products we bought for testing, so you won't be the first to turn them on or set them up. But we'll cover any service problems with a CHOICE warranty that'll match the manufacturers' — just as if you'd bought them new.

All new CHOICE subscriptions and renewals received from members and personal subscribers (including donors of gift subscriptions) by September 30 will go into the draw, unless of course you indicate you don't want to be included.

Subscriber draws are held every quarter — your renewal notice will have the details. If you're on a two-year subscription you'll be entered on your first anniversary as well as when you renew again.

Use the order form overleaf

CONDITIONS OF ENTRY

1. The winner will be drawn from new subscriptions and renewals from personal subscribers (including members and donors of gift subscriptions) received July 1 to September 30, 1995. If you opt for a two-year subscription, you'll be entered on your first anniversary as well as when you actually renew or subscribe. 2. Information on how to enter and prizes forms part of these conditions of entry. 3. Employees, and their immediate families, of the Australian Consumers' Association and its associated companies and agencies are ineligible to enter. 4. Entrants must be residents of Australia. 5. Applications are subject to a verification check and the judge's decision is final. No correspondence will be entered into. 6. The prizes will be delivered free anywhere within Australia. 7. Prizes cannot be taken as cash. 8. South Australian residents may enter the draw by completing the form and posting to: Reply Paid No. 24, ACA, 57 Carrington Road, Marrickville NSW 2204, without subscribing to the magazine. Only one entry per person is permissible through this method. 9. Last date for receipt of entries to the draw is September 30, 1995. No responsibility accepted for lost, late or misdirected mail. 10. The draw will be conducted at the office of the Consumers' Association at 10 am on October 3, 1995. 11. The winner will be notified by letter and published in the earliest feasible issue of CHOICE after that. 12. The promoter is Australian Consumers' Association, 57 Carrington Road, Marrickville NSW 2204. NSW permit No. TC95/2891 issued on 7/6/95, ACT Permit No. TP95/1115 issued under the Lotteries Ordinance on 7/6/95, NT No. NT95/0955 issued on 7/6/95.

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Travel is produced by the UK Consumers' Association and reprinted by CHOICE four times a year. While its reports are from the perspective of a European base, much of the information in them is just as useful to an Australian travelling in Europe and the USA, with occasional forays further afield. There's quality information about different regions, accommodation, specialties of local cuisine, sights to see, as well as places to avoid and tips on dealing with holiday hassles.

A subscription to Travel costs just \$27 a year — you can use the form on this page to subscribe. The latest issue features:

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- French canals
- The Italian Tyrol
- Edinburgh





How green is your office?

Modern offices have an array of expensive, energy-guzzling machines that generate enormous amounts of greenhouse gases as well as mountains of both wastepaper and non-biodegradable waste.

What can you do to make your workplace more environmentally friendly and efficient?

HOW MANY OF US who practise the three green Rs — reduce, reuse, recycle — at home regard environmental concerns at work as someone else's responsibility? Yet individuals can make a difference: even if you're only a junior employee you can do something to help create a more environmentally friendly workplace — as the saying goes, "Think globally, act locally".

Even simple actions — such as switching off unnecessary lights and equipment when not in use, reducing the amount of paper you use, reusing and recycling it, and using ceramic mugs and glasses instead of polystyrene cups — can help to minimise waste and pollution and save money.

While everyone can do their bit to make their workplace greener, it's a good idea to appoint people to co-ordinate a program and monitor its progress. Here are some areas where you can have an impact in your organisation.

Paper

Minimise paper use to save trees and help reduce greenhouse gas emissions (from paper production and decomposition in landfill), as well as saving landfill space.

- Circulate documents and use noticeboards or electronic mail instead of giving everyone their own printed copy.
- Reuse paper that's only been printed on one side for photocopying or printing draft documents. Keep a box by the photocopier for paper which can be reused. Put notices next to photocopiers and printers to show which way up used paper should be loaded.

- Reuse envelopes, packaging and paper where possible.

- Set up a paper recycling system in your office. Some paper recyclers supply personal collection boxes you can keep on or near your desk. (You don't need to remove staples, but take paper clips off to use again.)

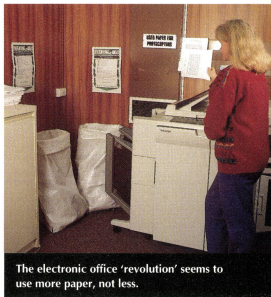
Also set up clearly labelled central bins or boxes for mixed paper (such as newspapers, magazines and cardboard) for recycling. Find out what recycling services are offered by your local council or choose a recycling company through the Yellow Pages.

- Buy Australian-made recycled stationery and paper products (such as toilet paper). A wide range of recycled stationery is now available. It's estimated every 70 reams (bundles of 500 sheets) of recycled paper used saves a tree and up to a tonne of greenhouse gas during manufacture. The point of buying Australian-made in this case is that we're reusing our own waste paper as well as minimising the impact of transport.

Lighting

Much of the electricity we use is generated using fossil fuels. This produces huge amounts of greenhouse gases. Lighting can be a big electricity user, so:

- Make the best use of natural light. You may be able to remove one fluorescent tube from light fittings near windows.
- Use light-coloured walls, ceilings and floor coverings to make better use of available light by reflecting and diffusing it.
- Consider replacing ordinary incandescent globes with compact low-energy



The electronic office 'revolution' seems to use more paper, not less.

fluorescent lamps. They usually fit into your existing light fittings and, although more expensive to buy, they're more economical in the long term and better for the environment. They consume only one quarter the electricity of ordinary globes.

- Switch off unnecessary lights. Contrary to myth, it generally doesn't cost more to switch lights off and on than to leave them on.
- Install timers and daylight and movement sensors to dim or switch off lights automatically when they're not needed.
- Install individual light switches in rooms which are vacant for long periods (such as conference rooms and store rooms), so they're switched on only when needed. Reduce the number of lights connected to one switch so only appropriate areas are lit.

Heating and cooling

You can reduce energy costs and greenhouse gas emissions from your air conditioning system by:

- Setting the thermostats in heating and cooling systems so the temperature indoors is comfortably low in winter (around 20°C) and comfortably high in summer (24°C). Don't fiddle with the thermostat once it's set — instead of speeding up the heating or cooling pro-



Over a million used laser printer cartridges end up in landfill each year — cartridge-free models are a less wasteful option.

cess, interfering with the system can reduce comfort and increase energy costs.

- Using weatherstrips on doors to reduce draughts and therefore heating costs.
- Installing insulation to reduce heat loss and gain through walls and ceilings, and external awnings, reflective films or reflective internal blinds to provide shade in summer.

Office equipment

Office machines may cost much more to run than their purchase price, according to the co-director of the environmental consultancy Sustainable Solutions, Alan Pears, who has done several studies of the energy efficiency of office equipment in Australia. For example, in 1992 he found that one popular photocopier, costing \$4000, rated as having a life of two million pages and left on continuously for seven years, could consume electricity costing more than \$2000, paper costing \$20,000 and toner costing \$14,000. The fossil fuels used to produce the electricity it needed to operate and the paper it consumed could generate more than 80 tonnes of carbon dioxide.

However, manufacturers are increasingly producing more energy-efficient office equipment. The best new printers, photocopiers, computers and monitors are now 60 to 90% more efficient than equipment Pears and colleagues tested three years ago.

Choosing new equipment

■ If you're thinking of buying a new office machine, ask sales staff (or, if they don't know, the manufacturer's technical staff) about its energy consumption both when in use and on standby (when it's turned on but not operating). Office equipment is often on standby for most of the day (this is very common with fax machines, for example), so choose models which use comparatively little power on standby.

■ A sleep mode is also a useful energy-saving feature. This means machines switch to low power consumption if they haven't been used for a specified period — although you should still turn them off at the end of the day.

■ If the model you're interested in does have a sleep mode, make sure it also has a short warm-up time — otherwise frustration may cause someone to sabotage the energy-saving device.

■ Find out whether the equipment can use recycled paper or a paper with some recycled content and how long toner cartridges and other short-life components can be expected to last.

■ If you're not looking for new equipment and have to put up with energy-gobbling models, you can still save plenty of energy and dollars simply by turning them off when they're not being used.

Computers

It's estimated a typical desktop computer costs around two cents an hour to operate and the power it uses can generate a staggering kilogram of greenhouse gas every seven hours. The environmental and financial costs of personal computers can be enormous if your office has a large number of them. This brings us to rule number one:

■ Turn off your computer at least at the end of the day and switch off your monitor if you're going to be away from it for more than 15 minutes. Sydney Electricity estimates a standard PC costs around \$115 a year to run if you leave it on all the time, compared to \$25 if you turn it off at night and during weekends and holidays. Turn off your computer overnight even if it has a sleep mode.

Don't leave your computer running overnight just because you have a screensaver. This feature only stops damage to the screen from the continu-

ous presentation of a single image; it doesn't save electricity.

Switching your PC and monitor on and off won't damage them (though this used to be a problem with some early hard disks, made more than 10 years ago). In fact, the life of a hard disk depends on the number of hours the computer is left on, so if you leave your computer running for long periods, disk drive bearings may fail earlier than expected and you could lose data. Similarly, a monitor's brightness declines with increased operating time.

■ If you're buying a new computer, consider choosing a notebook with a liquid crystal display. Notebooks use only about one-tenth as much electricity as conventional computers with a full-size monitor. If you don't like a small screen, using a notebook with an energy-efficient full-size monitor will still save more than half of the energy used by a conventional computer and monitor.

■ Choose your monitor carefully too — it often consumes more power than the computer. Colour monitors generally use more power than mono ones, and the larger the screen and higher the resolution, the greater the energy use.

Printers

■ Inkjet and dot matrix printers use less energy than most laser printers; it's also usually cheaper to replace ink cartridges for inkjet printers and ribbons for dot matrix models than the toner cartridges of laser printers.

■ If you need the speed and high print quality of a laser printer, choose a newer low-energy model that can print on recycled paper (without being damaged or voiding your warranty), gives clear reproduction using smaller fonts (and so gets more text on a page) and has a sleep mode or other energy-efficient features. You can now buy cartridge-free models to cut down on wastage, and some also feature a duplexer as an optional extra to enable you to print on both sides of the page.

■ If you're happy with your current printer, you can save money and reduce environmental impact by re-inking dot matrix ribbons, refilling inkjet cartridges and recycling laser toner cartridges.

Photocopiers

■ Choose a machine that warms up

BANK'S ENERGY-SAVING INVESTMENT PAYS OFF

You may not be surprised to learn that Westpac's 1300 bank branches and commercial buildings around the country cost the company \$23 million in electricity and gas bills in 1992. But what is remarkable is that this year Westpac's energy bill has been cut to \$19.2 million, thanks to the introduction of an energy-saving program in 1993. Since October 1993 a total of \$6 million has been saved, says energy project manager John Annas.

"Staff co-operation has been the key to the project's success," says Annas. In many smaller branches staff awareness is estimated to have reduced energy usage by up to 30%. "We recognised that about 40% of the total power bill in each Westpac branch was under staff control — that's about \$200 per person per year."

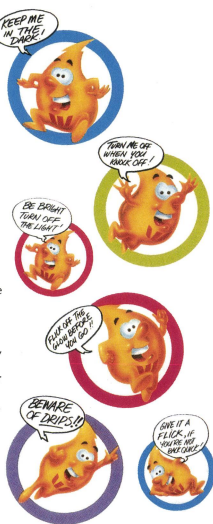
A staff education campaign brought home the importance of turning off lights, computers, photocopiers and other office equipment when not needed. It also dispelled several office myths — for example, contrary to what many people think, computer screensavers don't save energy, nor does frequently switching monitors on and off damage them. Simply encouraging staff to turn off unnecessary lights and equipment has already saved around \$1.7 million and cut greenhouse gas production by around 21,000 tonnes, according to Annas. It has also reduced the load on air conditioning systems — the major consumer of energy in Westpac buildings — so they are able to operate more efficiently.

quickly (in less than 30 seconds) and switches off automatically if left idle for a time. These features could save you more than a thousand dollars over the copier's life.

■ Use recycled (or high recycled content) paper, double-sided copying and reduction (so two pages can fit on one sheet) whenever possible.

Fax machines

■ An inkjet fax machine which uses plain paper is more economical and better for the environment than laser or thermal faxes. Although a thermal machine costs less to buy, thermal paper costs much more than plain paper, isn't recyclable and documents printed on it need to be photocopied for storage, as they fade



over time. Laser fax machines have many of the same usage costs as laser printers.

■ Paperless faxes — fax/modems and electronic faxes — which connect to computers and/or printers may be the best alternative, provided you don't have to leave your computer or printer switched on all the time to print or store the faxes.

Other office supplies

Consider using:

■ Washable cups, glasses and cutlery instead of disposable cups and stirring sticks.

■ Energy-efficient electrical appliances (such as refrigerators). Look for an energy rating label of at least four stars.

In larger branches installing a computerised building management system has saved around 25% a year in energy costs. This Sydney-based system can control air conditioning, hot water systems and external lighting in 110 bank branches and 20 large commercial buildings nationwide. It can detect, for example, whether the air conditioning in a Perth office is too high and adjust the level accordingly.

Under the building management system, no energy is wasted in warming up or cooling down buildings long before staff arrive: it simply compares the temperature outside with the temperature it's been programmed to reach inside and calculates exactly how long it will take to reach the set point.

By October 1996 the company aims to have saved \$10.2 million for an outlay of \$3.8 million and to have reduced greenhouse emissions by 53,000 tonnes. "So far we're right on target," says Annas.

Westpac's paper recycling program has also been very successful. The company's 280 NSW branches recycled 100 tonnes of paper for the month of May 1995 — that equates to a saving of up to 2500 trees a month from this staff action alone.

Westpac has invested a lot of money in its energy-saving program, but your workplace doesn't have to make a big outlay to save on energy bills and reduce waste. A two-year ACT government study showed organisations can save 10% on running costs, at little or no cost, simply by using environmentally sound work practices.

■ The smallest appropriate boiling water unit in your staff kitchen — an electric kettle may suit your needs better than an urn or wall unit.

■ Low-impact cleaning products — and minimise their use.

■ Water-based rather than solvent-based correction fluids. Some contain toxic solvents which are hazardous to inhale and ozone-depleting.

■ Refillable pens, pencils and markers.

■ Products available in recyclable and refillable packaging and containers. (Make sure you do recycle them.)

■ Clearly marked recycling bins or boxes in central areas — for example, in your staff kitchen — for glass, aluminium and plastic containers as well as milk cartons. □

Chairs for children

High-low chairs are a versatile alternative to older-style fixed high chairs — but unfortunately some of them aren't as safe as they could be.

HIGH CHAIRS NEED TO BE SAFE, easy to use and tough enough to stand up to normal use and reasonably expected abuse. Our test results show there has been an overall improvement in high chair safety since we last tested. But as we still can't recommend nearly half the chairs, the industry has a long way to go.

Traditionally, high chairs have a limited life. Once your child becomes too big or too active, the high chair is put in storage or given to friends. Also, because the old type of high chair can only be used at one height, there are limitations as to where and how they can be used.

To overcome some of these limitations, manufacturers have developed high-low chairs, so the seat can be adjusted to a lower position. This means the high-low chair can be set at the same height as the dining table, or adjusted to a lower, more convenient level for feeding, or used as a play chair.

We tested 16 high-low chairs for safety, versatility and ease of use. As there is no Australian standard, we based our tests on US and British standards.

Not all high-low chairs are equal. Some of the chairs we tested can only be adjusted to two positions — high and

low — while others can be used at a range of heights.

The IKEA Kameleont, which is marketed as a high-low chair, doesn't compare well with the other chairs we tested. When fitted with a tray, only its footrest is adjustable, which reduces its overall usefulness. However, without the tray fitted the IKEA can be used as an older child's seat.

SAFETY PROBLEMS

A high chair needs to be designed so that your child can't climb out, fall out or get caught in any part of the chair — and it should come with a safe, effective restraint. It should be strong and stable enough to support your child without the risk of it collapsing or tipping over. It should also be free of sharp edges and small spaces where little fingers and toes can get caught.

Seven of the 16 high-low chairs we tested didn't meet our safety requirements. Their problems are serious enough for us to recommend that you don't buy them.

■ The brace between the legs of the BREVI Big and BREVI Tris bent during our test of the locking device, which means they may fold up if accidentally knocked.

■ The BREVI Maxi, CAM Futura, CHILDCARE Baby Best and IKEA Kameleont all failed the vertical tray pull test — meaning it is possible to knock the tray off the high chair, perhaps with hot food on it. ■ The position and length of the CHILDCARE Champ's crotch strap raised concerns about a child's security.

While all the high chairs come with waist and crotch restraints, only some were effective enough to restrain an active child. Most of the chairs we don't recommend didn't have a basic restraint that we considered to be safe.

A full safety harness will provide the best protection against your child falling, but a good lap and crotch strap should be adequate.

Only the BABY TREND Home and



A good high chair should be both safe and practical. Our equal top four models are (from left to right) the Gerry Adjust-A-Height, Steelcraft Monaco, Monbebe Stella and Cam Alfa.

Roam, CHILDCARE Baby Best and STEELCRAFT Monaco come with a full safety harness. Most of the other chairs are supplied with harness anchor points, so you can buy and attach a full safety harness of your own.

However, the CHICCO New Lift, FISHER-PRICE Adjustable, IKEA Kameleont and KOLCRAFT Perfect Height didn't even have harness anchor points, let alone a full safety harness.

DIFFERENT-SIZED CHILDREN

Few of the chairs came with information about their suitability for children of different ages and sizes. Those that did generally recommended an age range of six months to three years.

Age is not a good guideline for deciding whether a high chair is suitable for a particular child. As a rule of thumb, a high chair shouldn't be used until your child can sit up unassisted. As your child gets older, they may become too large or unwilling to sit in a high chair. This is where high-low chairs are an advantage; they can be adjusted to a low position and used as a simple feeding or play chair.

Types of high chair

Looking for a high chair? There are four broad categories to choose from:

■ **Regular high chairs** have a fixed height.

■ **High-low chairs** can be adjusted to different heights to suit the needs of both parent and child.

■ **Convertible high chairs** can be converted into a chair and table.

■ **Hook-on high chairs** hook onto the edge of a table and are held in place by friction. Three of the high-low chairs we tested allow you to remove the seat and use it as a hook-on chair, but we don't recommend you use this option. See *Hook-on chairs* on page 44 for our reservations about this type.

What to look for

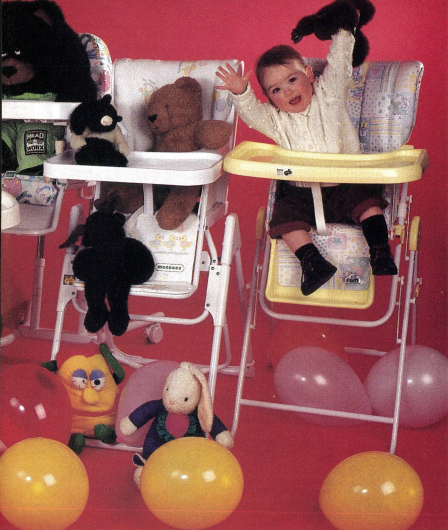
When shopping for any type of high chair, keep in mind two key factors: safety and practicality.

Safety

- Run your hand over the high chair, looking for any sharp bits and edges, or gaps where small fingers could get caught — including under the tray and where it meets the arms or legs of the chair.
- If the high chair is made from wood, make sure the surface is smooth and not likely to splinter.
- Give the tray a bit of yank, outwards and upwards, to check it's firmly attached; do the same with the footrest.
- Where restraint straps are provided, give those a tug too. Look for anchor points where you can attach a full safety harness (with shoulder as well as crotch and waist straps) if there isn't already one.
- You can get some idea of a high chair's stability by leaning on it, or picking it up as you would when using it — if it starts to tip or fold up on you, forget it.
- A full safety harness provides the best protection against the child falling. However, we consider a good lap and crotch strap provide adequate restraint.
- If the chair is mounted on castors, make sure at least two are fitted with brakes.

Practicality

- Make sure it's relatively light and easy to move.
- Avoid trays which look as if they might leak spills onto the child or the floor, or which have cute motifs likely to become food traps.
- The high chair should be easy to wipe down, with a minimum of grooves or other bits which may be difficult to clean.
- For a child, a seat which leans back at about 15° to the vertical is best.
- A footrest makes the high chair more comfortable, but can cause problems if your child uses it as a step to climb up on.
- Try out the seat positions, restraint and all adjustments with your child in the seat. (Don't actually adjust the height while your child is in the chair.)
- If the chair can be folded for storage, check you can fold it without too much effort.



USING HIGH CHAIRS SAFELY

While some of the chairs carried good safety warnings, others had none at all.

Following the guidelines below will help minimise the risk of your child

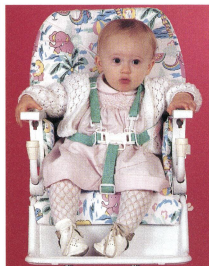
being injured while using a high chair.

- Always secure your child in a restraint; buy one if the chair doesn't have one.
- Full safety harnesses offer the best protection.
- Never leave your child unattended in a high chair.
- Don't use high chairs without their trays. While it's not their primary function, trays offer some form of restraint for your child, particularly those where the crotch strap is attached to the tray.
- Don't adjust the seat height while your child is in a high-low chair.
- Use caution with a high chair on castors — always lock the castors while your child is in the chair.

WHAT TO BUY

The following four models are the best high-low chairs in our test. However, a further five models (see the table on page 44) are considered OK to use.

CAM Alfa S164	\$150
GERRY Adjust-A-Height 385	\$180
MONBEBE Stella CC207	\$165
STEELCRAFT Monaco 31011	\$179



A full safety harness, which includes secure shoulder straps, provides the best protection against your child falling.

The first four high-low chairs profiled are equally recommended; the next five are OK to buy if you can't find the others. Prices shown are a good target to aim for when shopping around, based on nationwide checks in June 1995. Anything lower is a bargain.



CAM Alfa S164

Price: \$150

Good points

- Passed all our safety tests.
- Harness anchor points provided.
- Four-position solid footrest.
- Folds easily and compactly.
- Rollers on the rear legs.

Bad points

- One of the two catches to lock the chair in the high position is manually operated — you need to remember to use it.

GERRY Adjust-A-Height 385

Price: \$180

Good points

- Passed all our safety tests.
- Very large tray which can be removed with one hand.
- Easy to clean as the seat and back pad are removable.
- Carries some safety warnings.
- Good restraint with an easy-to-secure buckle, though the crotch strap needs to be laid out before seating your child.
- Three-position solid footrest.
- Harness anchor points provided.

Bad points

- Not as easy as some other models to fit child into chair.
- Fairly bulky when folded.

MONBEBE Stella CC207

Price: \$165

Good points

- Passed all our safety tests.
- Solid footrest.
- Harness anchor points provided.

Bad points

- Height adjustment requires good hand and foot co-ordination, although it is fairly easy.
- Fixed crotch strap: it can't be adjusted.
- Tray adjustment a little difficult.
- Instructions only fair, with minimal warnings.
- Fairly bulky when folded.

STEELCRAFT Monaco 31011

Price: \$179

Good points

- Passed all our safety tests.
- Full harness provided, with adjustments on all straps.
- Tray can be removed with one hand.
- Good safety warnings.
- Solid footrest.
- Mounted on four lockable castors.
- Seat can be detached and used at floor level.

Bad points

- Assembly quality problems on our sample; a screw securing the seat fell out during testing.
- Does not fold.



BABY TREND Home and Roam 8236

Price: \$170

Good points

- Full safety harness provided.
- Tray can be removed with one hand.
- Good safety warnings.
- Solid footrest.
- Mounted on four lockable castors.
- Seat can be detached and used at floor level.

Bad points

- Does not fold.

CHICCO New Lift 64907

Price: \$150

Good points

- Passed all our safety tests.
- Good safety warnings.
- Solid footrest.
- Mounted on four castors, two of which can be locked.

Bad points

- No harness anchor points.
- Poor instructions.
- Does not fold.

FISHER-PRICE Adjustable High Chair 9158

Price: \$275

Good points

- Passed all our safety tests.
- Very large tray which can be removed with one hand.
- Easy to clean as it has a removable seat and back pad.
- One-handed height adjustment.
- Carries some safety warnings.
- Good restraint with easy-to-secure buckles — and buckles on crotch strap ensure it is always secured as part of the restraint.
- Two-position solid footrest.

Bad points

- Difficult to assemble.
- Does not fold.
- No harness anchor points provided.
- Expensive.

KOLCRAFT Perfect Height CC195

Price: \$200

Good points

- Tray can be removed with one hand.
- Easy to clean; removable seat pad.
- Carries some safety warnings.
- Good restraint with an easy-to-secure buckle, but crotch strap must be laid out before seating your child.
- Three-position solid footrest.

Bad points

- A small piece of the latch broke off when the tray was drop-tested, but its operation was not affected; this is considered minor.
- Does not fold.
- No harness anchor points provided.

PEG PEREGO Baby Boy

Price: \$200

Good points

- Passed all our safety tests.
- Tray can be removed with one hand.
- Buckles on crotch strap ensure it is always secured as part of the restraint.
- Solid footrest.
- Mounted on four castors, two of which can be locked.
- Seat can be detached and used at floor level.

Bad points

- Tray is more difficult than others to adjust.
- Does not fold.
- Harness anchor points positioned too far forward to meet the requirements of the British Standard.

High chairs

1

Brand/model (in rank order, equal within groups)	Distributor	Origin	Target price (\$) *	Warranty (months)	Weight (kg)	Base dimensions (W x D, mm)	Folding	Height (cm)
RECOMMENDED								
CAM Alfa S164	Babyco	Italy	150	12	7.5	490 x 680	✓	2
GERRY Adjust-A-Height 385	Roger Armstrong	USA	180	12	7.1	620 x 690	✓	6
MONBEBE Stella CC207 (A)	C O White	Italy	165	12	9.0	495 x 665	✓	2
STEELCRAFT Monaco 31011	Britax	Taiwan	179	12	11.5	530 x 670		6
OK IF YOU CAN'T FIND THE TOP FOUR								
BABY TREND Home and Room 8236	Foldaway Industries	Taiwan	170	12	11.5	530 x 670		6
CHICCO New Lift Highchair 64907	J N H Toys	Italy	150	12	9.6	560 x 625		6
FISHER-PRICE Adjustable High Chair 9158	Mattel	USA / Mexico	275	24	7.0	625 x 725		6
KOLCRAFT Perfect Height CC195 (A)	C O White	USA	200	12	7.8	610 x 625		6
PEG PEREGO Baby Boy	Thebe International	Italy	200	12	9.4	525 x 660		6
NOT RECOMMENDED								
BREVI Big 230	Infra Products	Italy	185	12	9.1	545 x 670	✓	2
BREVI Maxi 240	Infra Products	Italy	200	12	8.5	550 x 685		8
BREVI Tris 250	Infra Products	Italy	160	12	8.5	505 x 580	✓	2
CAM Futura S2000	Babyco	Italy	150	12	5.5	540 x 650	✓	7
CHILDCARE Baby Best CC820	C O White	Taiwan	175	12	11.4	530 x 670		6
CHILDCARE Champ CC2300 (A)	C O White	Germany	(A)	12	8.5	455 x 545		5
IKEA Kameleont with (optional) tray	Ikea	Sweden	180	12	8.8	485 x 590		1 (A)

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in June 1995.

(A) This model has been discontinued but may still be available in some shops and secondhand. We couldn't find the Childcare Champ in enough shops to get a price.

(B) When the optional tray is attached, only the footrest is adjustable.

(C) Has harness anchor points but doesn't come with a full harness.

(D) Comes with neither a full safety harness nor anchor points. Harness anchor points are supplied but positioned too far forward to meet the requirements of the British Standard.

Hook-on chairs

Three of the high chairs we tested, the **BABY TREND Home and Room**, **CHILDCARE Baby Best** and **STEELCRAFT Monaco**, can also be used as hook-on chairs.

The seat section of these models can be detached from the rest of the frame and attached to the edge of a table. The table must be of a certain thickness, and strong and stable enough to support the chair, which is kept in place purely by friction.

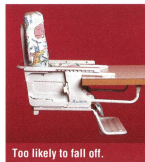
The advantage of hook-on high chairs is that they are easily portable — they can be taken on holidays or to restaurants, for example.

However, given the nature of these chairs, it's not surprising concerns have been raised about their safety, so we thought it was important to determine if the ones we tested were safe to use in this way.

Our tests were based on an American standard, which was developed to address potential accidents, such as the chair falling from the table, the child falling from the chair, or the child and table tipping over.

We recommend that you don't use the hook-on options of the **BABY TREND Home and Room**, **CHILDCARE Baby Best** or **STEELCRAFT Monaco**. Our results show that these hook-on chairs could move excessively if the child was very active, and can be easily knocked off the table if they're pushed sideways.

The **CHILDCARE Baby Best** and **STEELCRAFT Monaco** high-low chairs are also available from some retailers without the hook-on option.



Too likely to fall off.

For people with disabilities

Each high-low chair was assessed by the Independent Living Centre to see whether it was suitable for use by a disabled child or disabled parent. For a disabled parent, a high chair should allow:

- Easy removal of the tray for easy placement of your child.
- Easy adjustment of safety restraints.
- Easy folding for storage.

With these factors in mind, the high-low chairs found to be the most suitable were the **BABY TREND Home and Room** and **STEELCRAFT Monaco**.

These chairs were also assessed as most suitable for parents with back problems, as they were the tallest high chairs we tested.

Wheelchair users will find high-low chairs easier to use because they can be adjusted to a low position. In addition, high chairs which are mobile and have H-shaped bases provide better access for wheelchair users. These models include the **BABY TREND Home and Room**, **STEELCRAFT Monaco**, **CHICCO New Lift** and **PEG PEREGO Baby Boy**.

It's important that a disabled child is well supported. It may also be useful if the high chair can be adjusted to a low position so your child can be restrained at ground level to play with other children. The chairs most suitable for disabled children are:

- **BABY TREND Home and Room**
- **STEELCRAFT Monaco**
- **CHICCO New Lift**
- **FISHER-PRICE Adjustable**
- **KOLCRAFT Perfect Height**
- **PEG PEREGO Baby Boy**

	4	5	6	7	8	9	10	
Tray height (in)	Tray spill capacity	Structural safety	Tray safety	Stability	No finger or toe hazards	Safe restraint	Full safety harness	Brand/model (in rank order, equal within groups)
810	Good	✓	✓	✓	✓	✓	(C)	RECOMMENDED
760	Good	✓	✓	✓	✓	✓	(C)	CAM Alfa S164
780	Good	✓	✓	✓	✓	✓	(C)	GERRY Adjust-A-Height 385
950	Good	✓	✓	✓	✓	✓	✓	MONBEBE Stella CC207 (A)
								STEELCRAFT Monaco 31011
								OK IF YOU CAN'T FIND THE TOP FOUR
935	Good	✓	✓	✓	✓	Marginal	✓	BABY TREND Home and Roam 8236
795	Good	✓	✓	✓	✓	✓	(D)	CHICCO New Lift Highchair 64907
805	Good	✓	✓	✓	✓	✓	(D)	FISHER-PRICE Adjustable High Chair 9158
770	Good	✓	Marginal	✓	✓	✓	(D)	KOLCRAFT Perfect Height CC195 (A)
850	Good	✓	✓	✓	✓	✓	(E)	PEG PEREGO Baby Boy
								NOT RECOMMENDED
845	Good	X	X	✓	✓	X	(C)	BREVI Big 230
855	Good	✓	X	✓	✓	X	(C)	BREVI Maxi 240
800	Good	X	✓	✓	✓	X	(C)	BREVI Tris 250
770	Good	✓	X	✓	✓	X	(C)	CAM Futura S2000
900	Good	✓	X	✓	✓	✓	✓	CHILDCARE Baby Best CC820
730	Good	✓	✓	✓	✓	X	(C)	CHILDCARE Champ CC2300 (A)
5	Fair	✓	X	✓	✓	X	(D)	IKEA Kameleont with tray

1 Folding

Some of the chairs can be folded, making them easier to store. Of these, the **BREVI Big**, **BREVI Tris**, **GERRY Adjust-A-Height** and **MONBEBE Stella** are the bulkiest when folded. Of the high chairs that can't be folded, the **BABY TREND Home and Roam**, **CHICCO New Lift**, **CHILDCARE Baby Best**, **PEG PEREGO Baby Boy** and **STEELCRAFT Monaco** can be easily dismantled.

2 Height positions

With the exception of the **IKEA Kameleont**, the seats of all the chairs are adjusted to at least two positions — high and low. The seats of the **STEELCRAFT Monaco**, **BABY TREND Home and Roam**, **CHILDCARE Baby Best** and **PEG PEREGO Baby Boy** have their own foldout supports so that they can be put directly on the floor and used as a play seat.

3 Tray height

This is the lowest and highest distance from the floor that the chair and tray can be adjusted.

4 Tray spill capacity

All the trays except the **IKEA Kameleont** have a good lip around the edge to prevent spills leaking over. The **GERRY Adjust-A-Height**, **FISHER-PRICE Adjustable** and **KOLCRAFT Perfect Height** have a noticeable slope away from the child, which

is good for spills, but also means that toys roll away from the child.

PERFORMANCE

As there's no Australian standard for high chairs, our tests were based on American and British high chair standards, plus some tests we devised ourselves. We've grouped the tests in the following six areas. A **X** in any column means the chair wasn't satisfactory in that aspect.

5 Structural safety

■ Weights were placed on the seat, tray and footrest to ensure none of the parts broke under normal usage.

■ Chairs that can be folded away were checked for a locking device to prevent them folding up in use.

■ The chairs were also assessed for any sharp edges or protrusions and splinters (in wooden chairs). If there were any attachments that could be easily gripped by a child, these were tested to make sure they didn't break away too easily.

6 Tray safety

The tray was pulled and pushed outwards and upwards to see whether it would come away easily from the chair. It was also dropped from a one metre height to see whether it cracked. Spoons were dropped onto the tray to see if it dented easily.

7 Stability

Each chair was tested for stability to make sure it would be safe with a child both seated in it and climbing into it. All the chairs passed these tests.

8 No finger or toe hazards

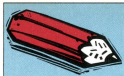
The chairs were examined for exposed springs, sharp edges, holes or other openings where a child could injure a finger, toe or even a limb. All the chairs passed these tests.

9 Safe restraint

We used a nine-month-old baby to assess the effectiveness of the restraints. The crotch strap or fixed bar is supposed to prevent the child from slipping forward out of the chair. We found that in some cases the crotch strap was too long or too far forward, allowing a small child to lift their leg over the crotch strap and possibly fall out. This would be particularly likely to happen if the lap strap was not secured or was loose. All children are different — you will know how important this factor is in your own situation.

10 Full safety harness

Only three of the chairs we bought came with a full safety harness. Several had harness anchor points where a harness could be attached (see footnotes).



WHAT DO YOU KNOW?



RECALLS AND BANS

1 What percentage of the 200 million dozen eggs produced in Australia each year comes from caged hens?

- A) 60%
- B) 95%
- C) 75%
- D) 80%



2 About how many Australian infants were injured using baby walkers between 1986 and 1992?

- A) 20
- B) 340
- C) 600
- D) 1000

3 If you buy a product that turns out to be faulty, you can demand its repair or replacement. True or false?

4 Thawed meat must be cooked the same day or it will go off. True or false?

5 Potatoes with green patches are safe to eat. True or false?

6 How many drinks a day do health authorities say are safe for most people? A maximum of:
A) Four for women and six for men.
B) Three for both men and women.
C) Two for women and four for men.
D) One for both men and women.

7 Faxes printed on thermal paper are suitable for long-term storage. True or false?



8 At the end of June 1993, how many vehicles were registered in Australia?

- A) 5.5 million.
- B) 10.5 million.
- C) 15.5 million.
- D) 20.5 million.

If you find a recall or ban not on our list, please let us know. Companies often rent 008 or 1800 numbers for a couple of months after the recall is announced. If the number given is no longer operating, phone the manufacturer or retailer direct.

Tecma Lemair has recalled LEMAIR AIR CONDITIONERS (C180, C240, C300, RC180, RC240 and RC300 models) as, without routine maintenance, salts may build up on run capacitors, which could result in a short circuit and possibly a fire. Only machines within the following serial number ranges are affected:

C180	RC180
190001-194712	490001-492171
100001-102746	400001-401577
110001-113518	410001-411982
120001-124959	420001-422299
130001-130200	430001-430839
140001-144080	440001-440200
C240	RC240
290001-291713	590001-593100
200001-200120	500001-501663
210001-212199	510001-511634
220001-222120	520001-521691
230001-230147	540001-540527
240001-241292	RC300
C300	690001-691459
390001-391962	600001-601384
300001-301252	610001-612029
310001-312031	620001-621920
320001-321800	630001-630317
330001-330453	

Serial numbers are located on the rating label behind the front panel and can be viewed through the left-hand side of the adjustable vents. Don't use these machines until they've been modified. Call 1800 624 606 to arrange for the necessary repairs to be made (free of charge). (Note that if the serial number is prefixed by 15..., 25..., 35..., 45..., 55..., or 65..., or suffixed by the letter B, the modification has already been made.)

D'Aquino has recalled ATHENA OUZO 750 mL, as it contains an excessive amount of methanol which could be toxic if consumed. Don't drink the product. Return to place of purchase for a refund. For further advice, call (063) 62 7381.

Franklins has recalled BABY DAYS BABY BOTTLE GRIP MODEL BH 31003, as the teat may be pulled off the bottle during feeding, particularly if pressure is applied when the bottle is at an angle. The product has now been removed from all Franklins stores in NSW, Victoria, Queensland, SA and the ACT. Return the product to the Franklins store from which it was purchased for a refund. For inquiries phone customer services on (03) 9305 9400 or the 24-hour hotline on 008 815 718.

ANSWERS

1. **B.** Despite the increasing variety of eggs now available on the market, including barn-laid and free-range, the majority still come from caged hens.
2. **C.** according to the federal Minister for Consumer Affairs. US surveys suggest up to 40% of babies placed in walkers are involved in some type of accident.
3. **False.** You have the right to get your money back on products that don't work as they should, but you can't specifically demand repair or replacement.
4. **False.** You can keep defrosted meat chilled for up to 48 hours before cooking it.
5. **False.** The green patches contain

solanine, which is toxic in large doses. Small patches can be cut off, but a potato green all over should be thrown away.

6. **C.** One standard drink contains about 10 g of pure alcohol — approximately the amount in 285 mL of full-strength (5% alcohol) beer, 120 mL of (10%) wine, 60 mL of (20%) sherry or fortified wine or a 30 mL nip of (40%) spirits. Try to have two alcohol-free days a week.
7. **False.** Thermal-paper faxes tend to fade over time so need to be photocopied onto plain paper if they are to be filed for any length of time.
8. **B.**

CHOICE

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TWELVE-MONTH INDEX

OCTOBER 1994 — SEPTEMBER 1995

(T) Test
(D) Includes assessment of suitability for people with disabilities
(U) Update of previous report
* Additions or corrections to reports, small follow-up items, or letters

Aids for the disabled	Nov	Fabrics, sunscreen	Jan (T), Mar*	Meat	
Air pollution	Jul	Fans, pedestal	Oct (T)	kangaroo	Jun
Alcohol, health effects	Aug	Fax machines	Aug (T)	processed	May
Anti-scald devices	Jul (T)	Film, colour print	Jun (T)	Medication centres	Sep
		Financial planners	Apr, Jun*, Aug*	Mince, 'lean'	Jul (T)
Baby monitors	Nov (T,D)	Food		Modems	Sep
Batteries, disposal	Feb	bread	Mar (T)	Mortgage managers	Mar
Battery recharger	Jul (T)	kangaroo meat	Jun		
Birth control, methods of	Oct	mince, 'lean'	Jul (T)	Nader, Ralph, speech	Mar
Bread	Mar (T)	nutrient claims on labels	Feb	Nutrient claims on food labels	Feb
Buying guide, annual	Dec	processed meat	May		
		sandwiches, pre-packaged	Feb (T)	Older people, caring for	Jan, Feb*, Mar*
Cars		sports drinks	Mar (T)	On-line information services	Sep
anti-lock braking systems	Aug	storage	Mar	Overlockers	May (T)
CD adaptors	Mar (T)	trends	Dec		
child restraints	Apr (T), Jul*	Food processors	Nov (T,D)	Paint, exterior	May (T)
half lead petrol	Oct			Pay TV	May
insurance	May, Jul (U), Aug*	'Green' homes	Apr	Pedestal fans	Oct (T)
Landcruiser tyres	Jan, Apr	Greening your office	Sep	Petrol, half lead	Oct
recalls	Dec	'Green' organisations	Oct	Pollution, air	Jul
reliability survey	Mar			Portable stereos (with CD player)	Jan (T)
safer	Mar	Hair removal	Sep (T)	Prescription drugs, cheaper	Jan
Caring for older people	Jan, Feb*, Mar*	Half lead petrol	Oct	Product liability	Jul
Carpets, 'unstable'	Oct (T)	Health services	Aug		
CD adaptors for cars	Mar (T)	doctors	Aug	Refunds	Feb
CD players, personal	Mar (T)	informed consent	Aug	Removalists	Aug
Champagne and sparkling wine	Dec (T)	making a complaint	Aug	Renting vs buying a home	Jul
Childcare	Oct, Nov	specialists	Aug	Repellents, mosquito	Jan (T), Feb (U)
Child car restraints	Apr (T), Jul*	Hearing damage	Apr		
Chipper/shredders	Jan (T)	Heaters, convection	Jun (T)	Sandwiches, pre-packaged	Feb (T)
Commonwealth Government appeals	Jun	High chairs	Sep (T,D)	Shares	Sep
Compost bins	Dec (T)	Homes, 'green'	Apr	Ski holidays	Jun
Contingency fees	Jan, Mar*	Hot water — anti-scald devices	Jul (T)	Solar lamps	Oct (T)
Contraception, methods of	Oct			Sparkling wine and champagne	Dec (T)
Convection heaters	Jun (T)	Index, four-year	Jun	Sports drinks	Mar (T)
Cooktops, electric	Jun (T,D)	Insect repellents	Jan (T), Feb (U)	St George appliances	May, Sep
Cordless drills	Aug (T,D)	Insurance, car	May, Jul (U), Aug*	Stereos, portable (with CD player)	Jan (T)
Credit card costs	Jan	Internet	Jul	Strata management	Dec
		Investing in shares	Sep	Sunscreen fabrics	Jan (T), Mar*
Deadlocks	Dec (T)	Investment advice	Apr, Jun*, Aug*		
Detergents, laundry	Aug (T)			Tampons/toxic shock	Jun
Disabled,		Kangaroo meat	Jun	Televisions, 51 cm	Apr (T)
aids for	Nov			Timber, how to buy 'green'	Feb, Jul*
rights of	Jun	Labelling, nutrient claims	Feb	Timer switches, electric	Feb (T)
Dishwashers	Apr (T,D), Aug*	Lamps, solar	Oct (T)	Tyres, Landcruiser	Jan, Apr
Dispute resolution	Sep	Laundry detergents	Aug (T)		
Drills, cordless	Aug (T,D)	Lawn trimmers	Oct (T)	Vacuum cleaners, mid-priced	Jul (T,D)
Drinking water quality	Sep	Lead	May	Video recorders	Feb (T)
Drugs, cheaper prescriptions	Jan, Mar	Locks, exterior door	Dec (T)		
				Washing machines	Nov (T,D), Feb*
EnergyCard	Jan, Mar*, Jul*			Water quality	Sep